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August 1, 2013

**VIA ELECTRONIC FILING**

Jocelyn G. Boyd, Esquire  
Chief Clerk/Administrator  
The Public Service Commission of South Carolina  
101 Executive Center Drive, Suite 100  
Columbia, South Carolina 29210

RE: Application of Duke Energy Carolinas, LLC for Approval of Rider 5  
Docket No. 2013-\_\_\_\_-E

Dear Mrs. Boyd:

Attached please find Duke Energy Carolinas, LLC's Application for Approval of Rider 5.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

Timika Shafeek-Horton  
Deputy General Counsel

Attachment

cc: Shannon Bowyer Hudson  
Courtney Edwards

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

In re:	)	
	)	
Application of Duke Energy Carolinas, LLC	)	DUKE ENERGY CAROLINAS, LLC'S
For Approval of Rider 5	)	APPLICATION FOR APPROVAL OF
	)	RIDER 5
	)	

Pursuant to S.C. Code Ann. § 58-37-20 (Cum. Supp. 2012) and 10 S.C. Code Reg. 103-819 and 823, the Rules of Practice and Procedure of the Public Service Commission of South Carolina ("Commission"), Duke Energy Carolinas, LLC ("the Company or Duke Energy Carolinas") respectfully requests that the Commission approve its application for Rider 5 to recover certain costs and revenue associated with its modified Save-A-Watt program. The Rider consists of the following components: the second year of lost revenues for Vintage 4; a portion of the third year of lost revenues for Vintage 3<sup>1</sup>; a true-up of avoided costs and year 1 lost revenues for Vintage 3<sup>2</sup>; a true up of the second and third year of Vintage 2 lost revenues; and a lost revenue true-up of Vintage 1, all in accordance with the modified Save-A-Watt cost recovery mechanism approved in Order Number 2010-79, Docket No. 2009-226-E. The proposed Rider 5 also includes a component to recover South Carolina's retail share of program costs<sup>3</sup> associated with the Company's Interruptible Service and Stand-By Generation programs ("Existing DSM Programs").<sup>4</sup> A separate application has been filed describing and requesting

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<sup>1</sup> Year 3 of lost revenues for Vintage 3 only includes participation for July through December of 2012 because the Company's new base rates, which are anticipated to be effective in September 2013, will incorporate recovery of the remainder of year 3 lost revenues.

<sup>2</sup> As explained later in this filing, the Company has changed the methodology it uses to calculate lost revenues. This change results in a more accurate representation of the lost revenues.

<sup>3</sup> Rider 5, Exhibit 5 contains a detailed description of each program applicable to Rider 5.

<sup>4</sup> Order No. 2010-79, at 66-67.

approval of a new mechanism for recovery of program costs and revenue expected to be incurred and earned in 2014; however, the first year of revenue to be collected pursuant to the new recovery mechanism is included in this rider.

### **BACKGROUND**

1. A modified Save-A-Watt cost recovery mechanism for energy efficiency ("EE") and demand side management programs ("DSM") was approved by the Commission in Order No. 2010-79, Docket No. 2009-226-E. The compensation model provides that the revenue requirements for Duke Energy Carolinas' EE and DSM programs recover (a) 75% of the Company's annual avoided capacity costs savings applicable to DSM programs, (b) 55% of the net present value avoided energy and capacity costs applicable to EE programs, and (c) lost revenues for EE programs only.<sup>5</sup> Duke Energy Carolinas recovers its program costs for the Existing DSM Programs as a separate component of the proposed Rider 5.<sup>6</sup>

2. The Company's Save-A-Watt recovery mechanism also employs a vintage year concept. A vintage year is defined to be the period in which a specific DSM or EE measure is installed for an individual participant or a group of participants. In this application, the proposed Rider 5 includes revenue requirements from Vintages 1, 2, 3 and 4. Vintage 1 covers the period of February 1, 2010 through December 31, 2010. Vintage 2 covers the period of January 1, 2011 through December 31, 2011. Vintage 3 covers the period of January 1, 2012 through December 31, 2012; and, Vintage 4 covers the period of January 1, 2013 through December 31, 2013.

3. The Commission has previously approved the following EE Riders related to these vintages:

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<sup>5</sup> Order No. 2010-79, at 67.

<sup>6</sup> Id. at 17.

- Vintage 1 in Order No. 2010-79<sup>7</sup>, Docket No. 2009-226-E;
- Vintage 2 and a rider that allowed the Company to recover the second year of Vintage 1 lost revenues for non residential energy efficiency participants in Order No. 2010-853, Docket No. 2010-299-E; and<sup>8</sup>
- Vintage 3, which included recovery of the second year of lost revenues for Vintage 2 and revenues associated with a true-up of Vintage 1, in Order No. 2012-202,<sup>9</sup> Docket No. 2011-420-E.
- Vintage 4, which included recovery of the second year of lost revenues for Vintage 3, a true-up of avoided costs and the first year of lost revenues for Vintage 2; and a true up of Vintage 1, including a true-up of avoided costs and all three years of lost revenues, in Order No. 2012-823<sup>10</sup>, Docket No. 2012-303-E.

#### **RIDER 5 REQUEST**

4. The revenue Duke Energy Carolinas proposes to recover under the proposed Rider 5 follow:

- \$40,707,122 for Residential Customers (**Exhibit A**, Line 3) and
- \$33,028,701 for Non-Residential Customers (**Exhibit A**, Line 39).

5. For Rider 5, the billing factors were separated to reflect non-residential customer participation in EE programs, DSM programs, or both EE and DSM programs. The proposed Rider 5 billing factors include prospective and true-up components. Based on the total costs to be recovered under the proposed Rider 5, as shown on **Exhibit A**, the billing factors applicable to South Carolina customers for the billing period January 1, 2014 through December 31, 2014, would be as follows:

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<sup>7</sup> Id. at 74.

<sup>8</sup> Order No. 2010-853, at 2.

<sup>9</sup> Order No. 2012-202, at 4.

<sup>10</sup> Order No. 2012-823, at 1.

<b>Residential Billing Factors</b>	<b>¢/kWh</b>
Residential Billing Factor for Rider 5 Lost Revenue True-Up Component (Vintages 1, 2, and 3)	.2470
Residential Billing Factors for Rider 5 Prospective Component (Vintage 3, 4 and Vintage year 2014)	.3437
<b>Residential Rider 5 (Total)</b>	<b>.6257</b>

<b>Non-Residential Billing Factors for Rider 5 Lost Revenue True-Up Component (Vintages 1 and 2 and 3)</b>	<b>¢/kWh</b>
Vintage1 EE Participant	.0029
Vintage 2 EE Participant	.0174
Vintage 3 EE Participant	.1211
Vintage 3 DSM Participant	.0312

<b>Non-Residential Billing Factors for</b>	<b>¢/kWh</b>
Vintage 3 EE Participant	.0075
Vintage 4 EE Participant	.0153
Vintage Year 2014 EE Participant	.0980
Vintage Year 2014 DSM Participant	.1005

The proposed tariff sheet for Rider 5 is attached as **Exhibit B**. A summary of the calculations used to determine these billing factors and the revenue requirement for Rider 5 is attached as **Exhibit A**. The supporting calculations for **Exhibit A** are attached. **Rider 5, Exhibit 5** contains a detailed description and evaluation of the Company's EE and DSM programs for 2012.

## RIDER 5 CALCULATION

6. As approved, the modified SAW program requires the Company to use the avoided cost rate as originally calculated as long as the evaluation, measurement and verification ("EM&V") true-ups show that the combined avoided energy and capacity costs have neither increased nor decreased by more than 25%. The Company prepares and reports avoided cost computations biennially in accordance with the regulations of the Public Utility Regulatory Policies Act of 1978. The Company filed its most recent report on February 20, 2013. Combined avoided energy and capacity costs have not changed by more than 25%. Consequently, the original avoided cost rates have been used for the relevant calculations in this filing.

7. Rider 5 includes components to recover revenue requirements related to EE and DSM programs implemented in Vintage 3, lost revenues resulting from the EE programs in Vintages 3 and 4, and a lost revenue true-up of Vintages 1, 2 and 3.<sup>11</sup> The true up of Vintage 1 and 2 is necessary to reflect a change in methodology. In previous filings, for lost revenues, the calculation for variable operation and maintenance expense was based on the cost of service of the vintage year. Going forward, the Company will use the variable operation and maintenance expense associated with the applicable tariff rates in effect during the period calculated.

8. Consistent with the Rider 4 filing, for this filing, the Company has computed lost revenues by separating the non-residential kW and kWh savings among non-residential rate schedules SGS, LGS, I, and OPT (General Service and Industrial Service) to determine the applicable amounts. These schedules represent the preponderance of participation in non-

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<sup>11</sup> Given the rate case the Company filed on May 18, 2013, to prevent double recovery via collection of revenue through this rider and revised base rates, the Company is seeking to collect via this rider only the portion of the third year of lost revenues for Vintage 3 represented by participation from July through December 2012, dates outside of the rate case test period. The Company has included in Rider 5 only the months of January through August 2013 for the third year of lost revenues for Vintage 3.

residential EE programs. Also consistent with the Rider 4 filing, the Company has calculated lost revenues for residential customers by separating the residential savings among rate schedules RS and RE, as the preponderance of participation in residential EE programs is on these rate schedules.

9. As shown in **Vintage 2, Exhibit 2** and **Vintage 3, Exhibit 2**, for the true-ups associated with these vintages, the avoided cost revenue requirements have been updated to reflect current information related to MW reductions, participation, and the EM&V results for most EE and DSM programs offered in Vintages 2 and 3. Additionally, as contemplated by Jane L. McManeus' testimony in Docket Number 2009-226-E, the Company has "applied interest at the Company's approved after-tax weighted average cost of capital" to the total amount under collected for Vintages 1, 2 and 3.<sup>12</sup>

10. The method used to determine whether an amount of interest is due the Company or is due customers reflects both the timing and amount of avoided cost revenue requirements and lost revenues due the Company, as well as the timing and amount of revenue the Company has collected from customers through its EE Rider. To compute interest, the Company computes the average cumulative balance of the amount over/under collected. That amount is multiplied by the Company's after-tax weighted average cost of capital authorized by the Commission for the applicable time period and refunded to or collected from the customer as appropriate. See Rider 5, Exhibit 4 for specific details regarding the calculation. The interest calculation for Rider 5 differs from the interest calculation in Rider 4. The Company views the current method as more accurate. Thus, the Company has adjusted the interest amounts calculated in Rider 4 to reflect the new interest calculation methodology. **Rider 5, Exhibit 4.** Duke Energy Carolinas has

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<sup>12</sup> Docket No. 2009-226-E, Transcript Volume 5, at 815, Order No. 2010-79 at 72, and Exhibit 1 at 3, Stipulation of Testimony and Waiver of Cross-examination.

incorporated EM&V results for the true-ups and the estimates associated with Vintage 3 and 4.<sup>13</sup>

11. Revenue requirements for Save-A-Watt DSM programs are determined on a system basis and allocated to South Carolina retail customers based on the class contribution to system retail peak demand. Revenue requirements for Save-A-Watt EE programs were determined on a system basis and allocated to all South Carolina retail customer classes based on South Carolina retail contribution to system retail sales. Residential customers pay for the allocated cost of residential programs and non residential customers pay for the allocated cost of non-residential programs. The cost of the Existing DSM Programs is recovered based on the cost of bill credits and amounts paid to customers participating in these programs. Revenue requirements for Existing DSM Programs are determined on a system basis and allocated to South Carolina retail customer classes based on the class contribution to system peak demand.

**Vintage 3, Exhibit 3.**

12. Except for costs to be incurred and revenue to be collected for programs to be implemented for 2014,<sup>14</sup> the proposed Rider 5 billing factors are based on the method approved by the Commission in Order No. 2010-79. The formula is designed to provide Duke Energy Carolinas with jurisdictional revenues to recover avoided energy and capacity costs and lost revenues and includes an earnings cap provision. Existing DSM Programs are a separate component of the proposed Rider 5.<sup>15</sup> **Vintage 3, Exhibit 3.** The proposed rider also reflects the opt-out provision for industrial customers. **Rider 5, Exhibit 3.** Projected South Carolina retail kWh sales used in the rate per kWh computation were updated to reflect spring 2013 sales

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<sup>13</sup> The earnings cap calculation for Rider 3 will be completed at the time of the final true-up. The Company partially trueed up Vintage 1 in Rider 3 and applied the earnings cap.

<sup>14</sup> The method used for costs and revenue associated with programs to be implemented for 2014 is described and the Company requests approval for the same in its Application for Approval of New Cost Recovery Mechanism and Portfolio of Demand-Side Management Energy Efficiency Programs.

<sup>15</sup> Order No. 2010-79, at 17. Recovery of Existing DSM Programs costs is based on traditional program cost recovery and recovered from all native load customers. Id. at 66.



forecast and estimated impacts of opt-out elections. **Rider 5, Exhibit 3.** The calculation of each component of Rider 5 is discussed in further detail below.

### Energy Efficiency

#### Vintage 4

13. The Company seeks to recover estimated lost revenues for the second year of Vintage 4, January 2014 to December 2014. The estimates reflect the most current information on expected participation and load impacts. Lost revenues are collected on a state specific basis because they reflect the under-collection of state specific costs. The calculation of lost revenues by program is provided in **Rider 5, Exhibit 1.**

14. Estimated revenues to be collected were based on achieving 85% of the avoided cost savings target through December 31, 2014. The Company chose the 85% billing rate in order to provide a conservative estimate and avoid over-charging customers if the Company was unable to meet its entire avoided cost savings target. Since industrial customers may opt-out of the DSM and/or EE components of Rider EE, the total non-residential revenue requirement reflects the elections made by eligible customers not to participate in a Vintage or Vintages.<sup>16</sup> **Rider 5, Exhibit 1.**

#### Vintage 3 True-Up

15. The Company has conducted a true-up for year 1 using actual participation, load impacts and rates in effect for 2012. Available EM&V information has been applied. The Company seeks to recover year three of lost revenues for Vintage 3 EE programs based on actual participation and load impacts from July to December 2012 for January through August 2013, at which time lost revenues will be recovered through new base rates. **Vintage 3, Exhibit 1.**

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<sup>16</sup> Order No. 2012-401, at 2.

### Vintage 2 True-Up

16. The Company has conducted a true-up for year 2 using actual participation, load impacts and rates in effect for 2012. Available EM&V information has been applied. **Vintage 2, Exhibit 2.**

### Vintage 1 True-Up

17. As stated previously, the Company also conducted a true-up of year 1 lost revenues due to the change in the calculation methodology. **Vintage 1, Exhibit 2.**

### Demand Side Management

#### Vintage 3

18. As previously stated, Duke Energy Carolinas receives 75% of the Company's annual avoided capacity costs savings applicable to DSM programs. For Vintage 3 and the existing DSM programs, the Company conducted an avoided cost true-up. The true-up of DSM programs (SAW) is based on actual participation, load impacts, and rates for January through December 2012. The true-up for the existing DSM programs is based on actual 2012 program costs and allocation factors. **Vintage 3, Exhibit 2.**

### Calculation of Revenue Requirement and Billing Factors

19. Based on the results of the programs to date, Duke Energy Carolinas calculated the residential revenue requirement of \$40,707,122 and the non-residential revenue requirement of \$33,028,701. **Exhibit A.** The revenue requirements were divided by the projected South Carolina sales (kWh) for the rate period to calculate the residential and non-residential billing factors as illustrated in **Exhibit B.** For nonresidential rates, the projected South Carolina sales (kWh) for the rate period exclude estimated sales of eligible customers that have elected to opt out.

## CONCLUSION

Based on the foregoing, the Company respectfully requests that the Commission grant its application seeking approval of Rider 5 as described in its Application. Additionally, the Company requests that revenue deemed appropriate to collect from customers in 2014, based on the Application the Company filed describing and requesting approval of a new cost recovery mechanism for EE and DSM, be added to the revenue requirements approved for Rider 5 and collected from customers via Rider 5. Finally, the Company would ask the Commission to allow the proposed rate to be put into effect without notice and hearing pursuant to S.C. Code Ann. Section 58-27-870(F). The proposed rates do not require a determination of the entire rate structure and overall rate of return, and will facilitate an orderly rate administration.

Dated this 1st day of August, 2013



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**Rider 5 Exhibits**

Exhibit A	Summary for Rider EE Exhibits and Factors
Exhibit B	Tariff Sheet
Vintage 1, Exhibit 1	Calculation of True-Up for Vintage 1, Years 1, 2 and one month of Year 3
Vintage 1, Exhibit 2	Lost Revenue True-Up – Vintage 1
Vintage 2, Exhibit 1	Calculation of True-Up for Vintage 2, Years 1, 2 and 8 months of Year 3
Vintage 2, Exhibit 2	True-up of Load Impacts and Avoided Cost Revenue Requirements by Program – Vintage 2
Vintage 2, Exhibit 3	Calculation of True-Up of Lost Revenues – Vintage 2
Vintage 2, Exhibit 4	Allocation Factors – Vintage 2
Vintage 3, Exhibit 1	Calculation of True-up for Vintage 3, Year 1 and estimate of Year 3 lost revenues
Vintage 3, Exhibit 2	Load Impacts and Avoided Cost Revenue Requirements by Program – Vintage 3
Vintage 3, Exhibit 3	Existing DSM Program Costs – Vintage 3
Vintage 3, Exhibit 4	Allocation Factors – Vintage 3
Vintage 4, Exhibit 1	Calculation of Estimate of Lost revenues for Vintage 4, Year 2
Vintage 2014, Exhibit 1, Pg. 1	Estimated Annual Riders Applicable to Residential Customers – Year 2014
Vintage 2014, Exhibit 1, Pg. 2	Estimated Annual Riders Applicable to Non-Residential Customers – Year 2014
Rider 5, Exhibit 1	South Carolina Lost Revenues Summary
Rider 5, Exhibit 2	DSM/EE Revenues Collected from Riders (By Vintage)
Rider 5, Exhibit 3	Forecasted kWh Sales for Rate Period
Rider 5, Exhibit 4, Page 1 of 4	Residential Interest Calculation – Vintages 1 and 2
Rider 5, Exhibit 4, Page 2 of 4	Residential Interest Calculation – Vintage 3
Rider 5, Exhibit 4, Page 3 of 4	Non-Residential Calculation – Vintages 1 and 2

Rider 5, Exhibit 4, Page 4 of 4	Non-Residential Interest Calculation – Vintage 3
Rider 5, Exhibits	Description and Evaluation of EE and DSM programs for 2012

Duke Energy Carolinas  
For the Period February 1, 2010 - December 31, 2014  
Docket Number 2013-XXX-E  
Exhibit Summary for Rider EE Exhibits and Factors

Exhibit A

**Residential Billing Factor**

1 Costs to be Recovered for Vintage 1 True-up	V1 Exhibit 1, Line 19	\$	(231,351)	
2 Costs to be Recovered for Vintage 2 True-up	V2 Exhibit 1, Line 17	\$	2,959,214	
3 Costs to be Recovered for Vintage 3 True-up	V3 Exhibit 1, Line 15	\$	13,339,216	
4 Total Cost to be Recovered Vintages 1, 2 and 3 True-ups	Line 1 + Line 2 + Line 3	\$	16,067,079	
5 Projected SC Residential Sales (kWh) for rate period	R5 Exhibit 3, Line 3		6,505,979,712	
6 Revenue Requirement Vintages 1, 2 and Vintage 3 True-up Component for Residential Rider EE (cents per kWh)	Line 4 / Line 5 * 100		0.2470	Applicati
7 Costs to be Recovered for Vintage 3 Prospective amounts	V3 Exhibit 1, Line 15	\$	1,055,596	
8 Costs to be Recovered for Vintage 4 Prospective amounts	V4 Exhibit 1, Line 3	\$	1,224,469	
9 Costs to be Recovered for Vintage Year 2014 Prospective Amounts	Year 2014 Exhibit 1, pg. 1 Line 12	\$	22,359,978	
10 Total Prospective Components of Residential Revenue Requirement	Line 7 + Line 8 + Line 9	\$	24,640,043	
11 Projected SC Residential Sales (kWh) for rate period	R5 Exhibit 3, Line 3		6,505,979,712	
12 Revenue Requirement Vintages 3, 4 and year 2014 Prospective Component for Residential Rider EE (cents per kWh)	line 10 / Line 11 * 100		0.3787	Applicati
13 Total Revenue Requirement for Residential Rider EE	Line 4 + Line 10	\$	40,707,122	
14 Total Revenue Requirement for Residential Rider EE (cents per kWh)	Line 6 + Line 12		0.6257	Applicati

**Non-Residential Billing Factors for Rider 5 True-Up Components**

15 Costs to be Recovered for Vintage 1 True-up - Vintage 1 EE Participant	V1 Exhibit 1, Line 34	\$	257,879	
16 Projected Vintage 1 EE Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,978,388,405	
17 EE Revenue Requirement Vintage 1 True-up Non-Residential Rider EE (cents per kWh)	Line 15/line 16 * 100		0.0029	Applicati
18 Costs to be Recovered for Vintage 2 True-up - Vintage 2 EE Participant	V2 Exhibit 1, Line 30	\$	1,510,615	
19 Projected Vintage 2 EE Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,660,803,125	
20 EE Revenue Requirement Vintage 2 True-up Non-Residential Rider EE (cents per kWh)	Line 18/line 19 * 100		0.0174	Applicati
21 Costs to be Recovered for Vintage 3 True-up - Vintage 3 EE Participant	V3 Exhibit 1, Line 27	\$	10,479,257	
22 Projected Vintage 3 EE Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,656,764,337	
23 EE Revenue Requirement Vintage 3 True-up Non-Residential Rider EE (cents per kWh)	Line 21/Line 22 * 100		0.1211	Applicati
24 Costs to be Recovered for Vintage 3 True-up - Vintage 3 DSM Participant	V3 Exhibit 1, Line 27	\$	2,501,818	
25 Projected Vintage 3 DSM Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,008,974,420	
26 DSM Revenue Requirement Vintage 3 True-up Non-Residential Rider EE (cents per kWh)	Line 24/Line 25 * 100		0.0312	Applicati

**Non-Residential Billing Factors for Rider 5 Prospective Components**

27 Total Vintage 3 Prospective EE Revenue Requirement - Vintage 3 EE Participant	V3 Exhibit 1, Line 27	\$	650,543	
28 Projected Vintage 3 EE Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,656,764,337	
29 EE Revenue Requirement Vintage 3 Lost Revenues Non-Residential Rider EE (cents per kWh)	Line 27/Line 28 * 100		0.0075	Applicati
30 Total Vintage 4 Prospective EE Revenue Requirement - Vintage 4 EE Participant	V4 Exhibit 1, Line 6	\$	1,339,288	
31 Projected Vintage 4 EE Participants SC Non-Residential Sales (kwh) for rate period	R5 Exhibit 3, Line 25		8,744,622,797	
32 EE Revenue Requirement Vintage 4 Lost Revenues Non-Residential Rider EE (cents per kWh)	Line 30/Line 31 * 100		0.0153	Applicati
33 Total Vintage Year 2014 Prospective EE Revenue Requirement - Vintage Year 2014 EE Participant	Year 2014 Exhibit 1, Pg. 2, Line 7	\$	8,347,760	
34 Projected Vintage Year 2014 EE Participants SC Non-Residential Sales (kwh) for rate period	Year 2014 Exhibit 1, Pg. 2, Line 8		8,513,956,840	
35 EE Revenue Requirement Vintage Year 2014 Lost Revenues Non-Residential Rider EE (cents per kWh)	Line 33/Line 34 * 100		0.0980	Applicati
36 Total Vintage Year 2014 Prospective DSM Revenue Requirement - Vintage Year 2014 DSM Participant	Year 2014 Exhibit 1, Pg. 2, Line 16	\$	7,941,542	
37 Projected Vintage Year 2014 DSM Participants SC Non-Residential Sales (kwh) for rate period	Year 2014 Exhibit 1, Pg. 2, Line 17		7,902,098,311	
38 DSM Revenue Requirement Vintage Year 2014 Lost Revenues Non-Residential Rider EE (cents per kWh)	Line 36/Line 37 * 100		0.1005	Applicati
<b>Total costs to be recovered in Rider 4 from Non-Residential Customers</b>				
15 Costs to be Recovered for Vintage 1 True-up - Vintage 1 EE Participant	V1 Exhibit 1, Line 34	\$	257,879	
18 Costs to be Recovered for Vintage 2 True-up - Vintage 2 EE Participant	V2 Exhibit 1, Line 30	\$	1,510,615	
21 Costs to be Recovered for Vintage 3 True-up - Vintage 3 EE Participant	V3 Exhibit 1, Line 27	\$	10,479,257	
24 Costs to be Recovered for Vintage 3 True-up - Vintage 3 DSM Participant	V3 Exhibit 1, Line 27	\$	2,501,818	
27 Total Vintage 3 Prospective EE Revenue Requirement - Vintage 3 EE Participant	V3 Exhibit 1, Line 27	\$	650,543	
30 Total Vintage 4 Prospective EE Revenue Requirement - Vintage 4 EE Participant	V4 Exhibit 1, Line 6	\$	1,339,288	
33 Total Vintage Year 2014 Prospective EE Revenue Requirement - Vintage Year 2014 EE Participant	Year 2014 Exhibit 1, Pg. 2, Line 7	\$	8,347,760	
36 Total Vintage Year 2014 Prospective DSM Revenue Requirement - Vintage Year 2014 DSM Participant	Year 2014 Exhibit 1, Pg. 2, Line 16	\$	7,941,542	
Total Non-Residential Revenue Requirements		\$	33,028,701	Applicati

RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

APPLICABILITY (South Carolina Only)

Service supplied under the Company's rate schedules is subject to approved adjustments for new energy efficiency and demand-side management programs approved by the Public Service Commission of South Carolina (PSCSC). The Rider Adjustments are not included in the Rate Schedules of the Company and therefore, must be applied to the bill as calculated under the applicable rate. Cost recovery under Rider EE consists of two four-year term programs, years 2009 – 2013 and years 2014 – 2017 as outlined separately below. This rider applies to service supplied under all rate schedules for program years 2009 – 2013 but does not apply to Rate Schedules, OL, FL, PL, GL and NL for program years 2014 – 2017.

The Rider will recover the cost of Duke Energy Carolinas' Interruptible Service and Stand-By Generator programs ("Existing DSM Programs") based on the cost of bill credits and amounts paid to customers participating on these programs ("Program Costs"). Revenue requirements will be determined on a system basis and allocated to SC retail customer classes based on the class contribution to system peak demand.

I. PROGRAM YEARS 2009-2013 (Vintages 1-4)

GENERAL PROVISIONS

This Rider will recover the cost of Duke Energy Carolinas' Save-a-Watt ("SAW") energy efficiency and demand-side management programs, using the method approved by the PSCSC, for programs implemented over a 4 year period (i.e., comprising four 12-month program years or "Vintage Years"). In each year this Rider will include components to recover revenue requirements related to demand-side management and energy efficiency programs implemented in that vintage, as well as lost revenues resulting from the energy efficiency programs. Lost revenues associated with each vintage will be recovered for 36 months upon implementation. As a result the Rider will continue beyond the 4 year period to fully recover lost revenues for programs in years 3 and 4.

Revenue requirements for SAW demand-side management programs will be determined on a system basis and allocated to South Carolina retail customers based on the class contribution to system retail peak demand. Revenue requirements for SAW energy efficiency programs will be determined on a system basis and allocated to all South Carolina retail customer classes based on SC retail contribution to system retail sales. Residential customers will pay for the allocated cost of residential programs; non-residential customers will pay for the allocated cost of non-residential programs.

Revenue requirements will be determined on a system basis and allocated to South Carolina retail customers based on the South Carolina retail contribution to system retail peak demand for demand side management programs and South Carolina retail contribution to system retail kWh sales for energy efficiency programs. Residential customer classes will pay for residential programs and non-residential customer classes will pay for non-residential programs through methods found appropriate by the Commission for demand-side management and energy efficiency programs, respectively. All allocation factors will be based on the Company's most recently completed cost of service study utilizing the allocation method approved by PSCSC in the Company's most recent general rate proceeding and will exclude the amounts related to customers that elect to opt out of this Rider.

TRUE-UP PROVISIONS

Rider amounts for SAW programs will initially be determined based on estimated kW and kWh impacts related to expected customer participation in the programs, and will be true-up as actual customer participation and actual kW and kWh impacts are verified.

Participation true-ups: After the first year, the Rider will include a true-up of previous Rider amounts billed to reflect actual customer participation in the programs.

Measurement and verification true-up: EM&V activities and results will be included in a mid-term EM&V-based true-up process that will be reflected in Vintage Year 3 Rider EE collections. A final EM&V true-up reflected in Vintage Year 6 Rider EE collections will incorporate all EM&V studies completed since the mid-term EM&V true-up. EM&V results will include measure-level savings adjustments and net-to-gross analysis. In addition, the mid-term and final true-ups will

RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

incorporate the most recent EM&V results in the avoided cost true-up, the lost revenue true-up, and the earnings cap true-up. Earnings cap true-up: In the sixth year a true up will be billed, if applicable, to refund amounts collected through the Rider in excess of the earnings cap, in accordance with the following levels of achievement and allowed return on investment.

<u>Percentage Actual Target Achievement</u>	<u>Return on Investment Cap on Program Costs Percentage</u>
>=90%	15%
80% to 89%	12%
60% to 79%	9%
< 60%	5%

DETERMINATION OF ENERGY EFFICIENCY RIDER ADJUSTMENT

Energy Efficiency Adjustments (EEA) will be applied to the energy (kilowatt hours) billed of all rate schedules for each vintage as determined by the following formula:

EEA Residential (expressed as cents per kWh) = SAW Residential Adjustment + Existing DSM Residential Adjustment

SAW Residential Adjustment = Residential Avoided Cost Revenue Requirement + Residential Lost Revenues / Forecasted Residential kWh Sales for the Rider billing period

Where

Residential Avoided Cost Revenue Requirement = (Residential Demand Side Management Program Avoided Cost Revenue Requirement X 75%) + (Residential Energy Efficiency Program Avoided Cost Revenue Requirement X 55%)

And

Existing DSM Residential Adjustment = Non-SAW Residential Program Costs / Forecasted Residential kWh Sales for the Rider billing period

EEA Non-residential (expressed as cents per kWh) = SAW Non-residential Adjustment + Existing DSM Non-residential Adjustment

SAW Non-residential Adjustment = Non-residential Avoided Cost Revenue Requirement + Non-residential Lost Revenues / Forecasted Non-residential kWh Sales (excluding opt out sales) for the Rider billing period

Where

Non-residential Avoided Cost Revenue Requirement = (Non-residential Demand Side Management Program Avoided Cost Revenue Requirement X 75%) + (Non-residential Energy Efficiency Program Avoided Cost Revenue Requirement X 55%)

And

Existing DSM Non-residential Adjustment = Non-SAW Non-residential Program Costs / Forecasted Non-residential kWh Sales (excluding opt out sales) for the Rider billing period

II. PROGRAM YEARS 2014-2017 (Vintages 2014-2017)

GENERAL PROVISIONS

This Rider will recover the cost of new energy efficiency and demand-side management programs, using the method approved by the PSCSC, for programs implemented over a four-year period (i.e., comprising four 12-month program years or "Vintage Years").



RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

TRUE-UP PROVISIONS

Rider amounts will initially be determined based on estimated kW and kWh impacts related to expected customer participation in the programs, and will be trued-up on an annual basis as actual customer participation and actual kW and kWh impacts are verified. The true-up will reflect actual participation and EM&V results for the most recently completed vintage. If a customer participates in any vintage of programs, the customer is subject to the true-ups for any vintage of programs in which the customer participated.

RIDER EE OPT OUT PROVISION FOR QUALIFYING NON-RESIDENTIAL CUSTOMERS

The Rider EE increment applicable to energy efficiency programs and/or demand-side management programs will not be applied to the energy charge of the applicable rate schedule for Customers qualified to opt out of the programs where:

- a. The Customer attests or certifies to the Company that it has performed or had performed for it an energy audit or analysis within the three year period preceding the opt out request and has implemented or has plans for implementing the cost-effective energy efficiency measures recommended in that audit or analysis; and
- b. The Customer is served under an electric service agreement where the establishment is classified as a "manufacturing industry" by the Standard Industrial Classification Manual published by the United States Government, and where more than 50% of the electric energy consumption of such establishment is used for its manufacturing processes.

For Customers who elect to opt out of Energy Efficiency Programs, the following provisions also apply:

- Qualifying customers may opt out of the Company's energy efficiency programs each calendar year only during the designated annual two month enrollment period. For the Rider EE 2014 Program Year, the enrollment period begins November 1, 2013 and ends December 31, 2013.
- Customers may not opt out of individual energy efficiency programs offered by the Company. The choice to optout applies to the Company's entire portfolio of energy efficiency programs.
- If a customer participates in any vintage of energy efficiency programs, the customer, irrespective of future opt-out decisions, remains obligated to pay the remaining portion of the lost revenues for each vintage of efficiency programs in which the customer participated.
- Customers who elect to opt out during the two-month annual enrollment period immediately prior to the new Rider EE becoming effective may elect to opt in to the Company's energy efficiency program during the first 5 business days of March each calendar year. Customers making this election will be back-billed to the effective date of the new Rider EE.

For Customers who elect to opt out of Demand Side Management Programs, the following provisions also apply:

- Qualifying customers may opt out of the Company's demand-side management program during the enrollment period between November 1, and December 31 immediately prior to a new Rider EE becoming effective on January 1 of the applicable year. (Qualifying new customers have sixty days after beginning service to opt out).
- If a customer elects to participate in a demand-side management program, the customer may not subsequently choose to opt out of demand side management programs for three years.
- Customers who elect to opt out during the two-month annual enrollment period immediately prior to the new Rider EE becoming effective may elect to opt in to the Company's demand-side management program during the first 5 business days of March each calendar year. Customers making this election will be back-billed to the effective date of the new Rider EE.

Any qualifying non-residential customer that has not participated in an energy efficiency or demand-side management program may opt out during any enrollment period, and have no further responsibility to pay Rider EE amounts associated with the Customer's opt out election for energy efficiency and/or demand-side management programs.

RIDER EE (SC)  
ENERGY EFFICIENCY RIDER

ENERGY EFFICIENCY RIDER ADJUSTMENTS (EEA) FOR ALL PROGRAM YEARS

The Rider EE amounts applicable to the residential and nonresidential rate schedules for the period January 1, 2014 through December 31, 2014 including revenue-related taxes and utility assessments are as follows:

<b><u>Residential</u></b>	Vintage 1, 2, 3,4	0.2820¢ per kWh	
	Vintage 2014	<u>0.3437¢ per kWh</u>	
	<b>Total Residential</b>	<b>0.6257¢ per kWh</b>	
<b><u>Nonresidential</u></b>		<u>Energy Efficiency</u>	<u>Demand Side Management</u>
	Vintage 1	0.0029¢ per kWh	NA
	Vintage 2	0.0174¢ per kWh	NA
	Vintage 3	0.1286¢ per kWh	0.0312 ¢ per kWh
	Vintage 4	0.0153¢ per kWh	NA
	2014 Vintage*	0.0980¢ per kWh	0.1005 ¢ per kWh
	Total Vintage 1, 2, 3,4, 2014	0.2622¢ per kWh	0.1317¢ per kWh
	<b>Total Nonresidential</b>	<b>0.3939¢ per kWh</b>	

\*Not Applicable to Rate Schedules OL, FL, PL, GL, and NL

Each factor listed under Nonresidential is applicable to nonresidential customers who are not eligible to opt out and to eligible customers who have not opted out. If a nonresidential customer has opted out of a Vintage(s), then the applicable energy efficiency and/or demand-side management charge(s) shown above for the Vintage(s) during which the customer has opted out, will not apply to the bill.

**RESIDENTIAL**

**Adjustment to Revenue Requirement:**

1 EE Avoided Cost Component	Prior Rider -Vintage 1, Exhibit 1	unchanged		
2 DSM Avoided Cost Component	Prior Rider -Vintage 1, Exhibit 1	unchanged		
3 Total Residential Avoided Cost Component	Line 1 + Line 2	unchanged		
4 Gross Receipts Tax and Regulatory Fee		unchanged		
5 Total EE/DSM Residential Avoided Cost Component	Line 3 + Line 4			
6 Total Lost Revenues Vintage 1	Vintage 1 Exhibit 2	\$(20,702)	\$(20,702)	
7 Residential Save-A-Watt Revenue Requirement	Line 5 + Line 6	100%	100%	
8 Billing Factor				
9 Residential Save-A-Watt Revenue Requirement	Line 7 * Line 8	\$(20,702)	\$(20,702)	
10 Residential Existing DSM Program Revenue Requirement	Prior Rider -Vintage 1, Exhibit 1	unchanged		
11 Total Residential SAW & Existing DSM Program Revenue Requirement	Line 9 + Line 10	\$(20,702)	\$(20,702)	
12 Earnings Cap Adjustment	Prior Rider -Vintage 1, Exhibit 1	unchanged		
13 Residential Revenue Requirement Capped	Line 11 + Line 12	\$(20,702)	\$(20,702)	

**Adjustment to Revenue Collected:**

14 Amount Collected through Riders 1, 2 actual and Rider 3 estimate	Prior Rider -Vintage 1, Exhibit 1		\$ 19,135,396	
15 Total Collected for Vintage 1 ( Rider 1, Rider 2, and Rider 3 actuals)	RS Exhibit 2, Line 1		\$ 19,294,090	
16 Adjustment for Actual vs Estimated Rider 3 collections	Line 15 - Line 14	\$ 158,694	\$ 158,694	
17 Total Adjustment before interest	Line 13 - Line 16	\$(179,396)		
18 Interest Amount due	RS Exhibit 4, Page 1 of 4, Line 12	\$(51,955)		
19 Residential True-up Amount with interest	Line 17 + Line 18	\$(231,351)		

**NON-RESIDENTIAL**

**Adjustment to Revenue Requirement:**

20 SAW EE Avoided Cost Component	Prior Rider -Vintage 1, Exhibit 1	unchanged		
21 Gross Receipts Tax and Regulatory Fee	Line 20 * Line 21	\$(5,399)	\$(5,399)	
22 Total Non-Residential Avoided Cost Component	Vintage 1 Exhibit 2	\$(5,399)	\$(5,399)	
23 Total Lost Revenues Vintage 1	Line 22 + Line 23	100%	100%	
24 Non-Residential EE Revenue Requirement	Line 24 * Line 25	\$(5,399)	\$(5,399)	
25 Billing Factor				
26 Total Non-Residential EE Revenue Requirement	Prior Rider -Vintage 1, Exhibit 1	unchanged		
27 Earnings Cap Adjustment	Line 26 + Line 27			
28 Non-Residential Revenue Requirement Capped				

**Adjustment to Revenue Collected:**

29 Amount Collected through Riders 1, 2 actual and Rider 3 estimate	Prior Rider -Vintage 1, Exhibit 1		\$ 3,772,514	
30 Total Collected for Vintage 1 ( Rider 1, Rider 2, and Rider 3 actuals)	RS Exhibit 2, Lines 4		\$ 3,525,622	
31 Adjustment for Actual vs Estimated Rider 3 collections	Line 30 - Line 29	\$(246,892)	\$(246,892)	
32 Total Adjustment before Interest	Line 26 - Line 31	\$ 241,493		
33 Interest Amount due	RS Exhibit 4, Page 3 of 4, Line 12	\$ 16,386		
34 Non-Residential True-up Amount Vintage 1 with Interest	Line 32 + Line 33	\$ 257,879		
35 Projected SC Non-Residential Sales (kWh) for billing period	RS Exhibit 3, Line 25	\$ 8,978,388,405		
36 Non-Residential Rider EE (cents per kWh)	Line 34/Line 35 * 100	0.0029		

\* includes 1 month of Year 3 (January 2012)

Detail of Adjustments to Vintage 1			
Adjustments to Vintage 1	Net Lost Revenue Rate Change Impact	Collections True-up	Rider 3
unchanged			
unchanged			
unchanged			
unchanged			
\$ (20,702)	\$(20,702)		
\$ (20,702)	\$(20,702)		
100%	100%		
\$(20,702)	\$(20,702)		
unchanged			
\$(20,702)	\$(20,702)		
unchanged			
\$(20,702)	\$(20,702)		
\$ 158,694		\$ 19,135,396	
		\$ 19,294,090	
		\$ 158,694	

See Exhibit A for rate

Detail of Adjustments to Vintage 1			
Adjustments to Vintage 1 -EE Participants	Net Lost Revenue Rate Change Impact	Collections True-up	Rider 3
unchanged			
unchanged			
unchanged			
\$(5,399)	\$(5,399)		
\$(5,399)	\$(5,399)		
100%	100%		
\$(5,399)	\$(5,399)		
unchanged			
\$(246,892)		\$ 3,772,514	
		\$ 3,525,622	
		\$(246,892)	
\$ 241,493			
\$ 16,386			
\$ 257,879			
\$ 8,978,388,405			
0.0029			

**Duke Energy Carolinas**  
**For the Period February 1, 2010 - December 31, 2010**  
**Docket Number 2013-XXX-E**  
**Calculation of True-Up of Lost Revenues for Vintage 1**

	<b>Residential</b>			<b>Non-Residential</b>		
	2010	2011	2012	2010	2011	2012
	Total			Total		
1 Lost Revenues - as filed in Rider 4	\$ 1,714,869	\$ 4,742,995	\$ 395,250	\$ 571,894	\$ 1,129,724	\$ 94,144
2 Lost Revenues	\$ 1,710,099	\$ 4,729,684	\$ 392,628	\$ 569,552	\$ 1,125,207	\$ 95,604
3 True Up of Lost Revenues	\$ (4,770)	\$ (13,311)	\$ (2,622)	\$ (2,342)	\$ (4,517)	\$ 1,460
			<b>\$ (20,702)</b>			<b>\$ (5,399)</b>

Vintage 2 Exhibit 1

Duke Energy Carolinas  
For the Period January 1, 2011 - December 31, 2011  
Docket Number 2012-3004-E  
Calculation of True-Up for Vintage 2

**RESIDENTIAL**

**Adjustment to Revenue Requirement:**

- 1 EE Avoided Cost Component
- 2 DSM Avoided Cost Component
- 3 Residential Avoided Cost Component
- 4 Gross Receipts Tax and Regulatory Fee
- 5 Total EE/DSM/Residential Avoided Cost Component
- 6 Total Lost Revenue - Vintage 2
- 7 Residential Smart-Meter Revenue Requirement
- 8 Billing Cycle Smart-Meter Revenue Requirement
- 9 Residential Existing DSM Program Revenue Requirement
- 10 Residential Existing SAW & Existing DSM Program Revenue Requirement
- 11 Total Residential SAW & Existing DSM Program Revenue Requirement

**Adjustment to Revenue Collected:**

- 12 Amount Collected through Rider 2 actual and Rider 3 estimate
- 13 Total Collected for Vintage 2 (Rider 2 and Rider 3 Actuals)
- 14 Adjustment for Actual vs Estimated Rider 3 collections
- 15 Total Adjustment before Interest
- 16 Interest Amount due Company
- 17 Residential True-up Amount with Interest

Details of Adjustments to Vintage 2				Rider 3 Revenue Collection True-up
Adjustments to Vintage 2	Update of Participation in (HECA & Smartmeter Change Impact)	Net Lost Revenue Rate	Year 2 Lost Revenues True-up	Year 3 Lost Revenues
\$ (84)	(\$4)			
\$ (84)	(\$4)			
\$ 1,003,508	1,003,508			
\$ (84)	(\$4)			
\$ 2,210,871	2,210,871			
\$ 2,240,817	2,240,817	(5,041)	(753,422)	3,039,365
		100%	100%	85%
\$ 1,824,912	1,824,912	(5,041)	(753,422)	2,583,460
\$ 1,824,912	1,824,912	(5,041)	(753,422)	2,583,460
\$ 1,824,912	1,824,912	(5,041)	(753,422)	2,583,460
\$ 20,331,263				
\$ 19,296,853				
\$ 1,034,410				

See Exhibit A for rate

- V2 Exhibit 2, Line 8
- Prior Riders - Vintage 2
- Line 1 - Line 2
- Line 3 - Line 4
- V2 Exhibit 3
- Line 5 - Line 6
- Line 7 - Line 8
- Prior Riders - Vintage 2
- Line 9 - Line 10
- Prior Riders - Vintage 2
- RS Exhibit 2, Line 2
- Line 13 - Line 12
- Line 11 - Line 10
- RS Exhibit 4, Page 1 of 4, Line 25
- Line 15 - Line 16

**NON-RESIDENTIAL**

**Adjustment to Revenue Requirement:**

- 18 SAW EE Avoided Cost Component
- 19 Gross Receipts Tax and Regulatory Fee
- 20 Total Non-Residential Avoided Cost Component
- 21 Total Lost Revenue - Vintage 2
- 22 Non-Residential EE Revenue Requirement
- 23 Billing Factor
- 24 Non-Residential EE Revenue Requirement

**Adjustment to Revenue Collected:**

- 25 Amount Collected through Rider 2 actual and Rider 3 estimate
- 26 Total Collected for Vintage 2 (Rider 2 and Rider 3 Actuals)
- 27 Adjustment for Actual vs Estimated Rider 3 collections
- 28 Total Adjustment before Interest
- 29 Interest Amount due Company
- 30 Non-Residential True-up Amount Vintage 2 with Interest
- 31 Projected SC Non-Residential Sales (kWh) for billing period
- 32 Non-Residential Rider EE (cents per kWh)

Details of Adjustments to Vintage 2				Rider 3 Revenue Collection True-up
Adjustments to Vintage 2	Net Lost Revenue Rate change impact	Year 2 Lost Revenues True-up	Year 3 Lost Revenues	Year 3 Lost Revenues
\$ (67,761)	(2,761)			
\$ 1,494,146	1,494,146	(7,002)	(794,905)	794,905
\$ 1,494,146	1,494,146	(7,002)	(794,905)	794,905
\$ 1,494,146	1,494,146	(7,002)	(794,905)	794,905
\$ 1,494,146	1,494,146	(7,002)	(794,905)	794,905
\$ 1,494,146	1,494,146	(7,002)	(794,905)	794,905
\$ 4,305,769				
\$ 4,124,985				
\$ 180,784				

See Exhibit A for rate

- Vintage 2 Exhibit 2
- Line 17 - Line 18
- RS Exhibit 1, Line 28
- Line 19 - Line 20
- Line 21 - Line 22
- Prior Riders - Vintage 2
- RS Exhibit 2, Lines 5
- Line 25 - Line 26
- Line 24 - Line 27
- RS Exhibit 4, Page 3 of 4, Line 25
- Line 28 - Line 29
- RS Exhibit 3, Line 25
- Line 30 / Line 31 - 100

Duke Energy Carolinas  
For the Period January 1, 2011 - December 31, 2011  
Docket Number 2013-10-E  
True-up of Load Impacts and Avoided Cost Revenue Requirements by Program - Vintage 2

	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement	SC kWh Sales Allocation Factor (V2 Exhibit 4, Line 6)	SC Residential Avoided Costs		
					A * B	C	D C D
<b>Residential Programs</b>							
<b>EE Programs (at 55% Avoided Cost)</b>							
1 Appliance Recycling	1,306	9,237,946	\$ 1,440,886	27.22374%	\$	\$	\$ 0
2 Residential Energy Assessments	39,712	367,409,449	\$ 45,110,075	27.22374%	\$	\$	\$ (68)
3 Smart Saver® for Residential Customers	52	488,949	\$ 57,147	27.22374%	\$	\$	\$ (0)
4 Low Income Energy Efficiency and Weatherization Assistance	262	1,413,208	\$ 284,734	27.22374%	\$	\$	\$ (0)
5 Energy Efficiency Education Program for Schools	21	126,564	\$ 41,955	27.22374%	\$	\$	\$ (0)
6 Residential Retrofit Pilot	66	356,218	\$ 34,897	27.22374%	\$	\$	\$ (16)
7 Home Energy Comparison Report			\$		\$	\$	\$
8 Total for Residential Conservation Programs	41,419	379,022,334	\$ 46,969,694		\$	\$ 12,786,907	\$ (84)
				<b>SC Residential Peak Demand Allocation Factor (V2 Exhibit 4, Line 14)</b>	<b>A * B</b>		
	548,335		\$ 33,322,193	10.05492%	(1) \$	\$ 3,350,520	\$ -

**9 Total DSM Programs (at 75% Avoided Costs)**

	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement	NC kWh Sales Allocation Factor (V2 Exhibit 4, Line 6)	SC Non-Residential Avoided Costs		
					A * B		
<b>Non-Residential Programs</b>							
<b>EE Programs (at 55% Avoided Cost)</b>							
10 Smart Saver® for Non-Residential Customers Lighting	11,329	64,190,217	\$ 14,143,982	27.22374%	\$	\$ 3,850,521	\$ -
11 Smart Saver® for Non-Residential Customers Motors	1,107	5,750,908	\$ 1,353,127	27.22374%	\$	\$ 368,372	\$ -
12 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)	82	503,823	\$ 62,333	27.22374%	\$	\$ 16,969	\$ -
13 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products	184	1,012,402	\$ 272,458	27.22374%	\$	\$ 74,173	\$ -
14 Smart Saver® for Non-Residential Customers - HVAC	1,869	4,987,231	\$ 2,254,464	27.22374%	\$	\$ 613,749	\$ -
15 Smart Saver® for Non-Residential Customers - Custom Rebate	6,565	55,974,704	\$ 11,946,459	27.22374%	\$	\$ 3,252,273	\$ -
16 Smart Energy Now	1,344	7,159,090	\$ 999,956	27.22374%	\$	\$ 255,891	\$ -
17 Total for Non-Residential Conservation Programs	22,500	139,578,375	\$ 30,972,781		\$	\$ 8,431,948	\$ -
				<b>SC Non-Residential Peak Demand Allocation Factor (V2 Exhibit 4, Line 15)</b>	<b>A * B</b>		
	548,335	0	\$ 33,322,193	15.39617%	(1) \$	\$ 5,130,341	\$ -

**18 Total DSM Programs (at 75% Avoided Cost)**

	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement	SC Retail Peak Demand Allocation Factor (V2 Exhibit 4, Line 13)	SC Residential Avoided Costs		
					A * B		
<b>Total DSM Program Breakdown</b>							
19 Power Manager (Residential)	226,935	-	\$ 13,790,791				
20 Power Share (Non-Residential)	321,400	-	\$ 19,531,402				
21 Total DSM	548,335	-	\$ 33,322,193	25.45106%	\$	\$ 8,480,858	\$ -

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Note: Exhibits may not foot due to rounding

**Duke Energy Carolinas**  
**For the Period January 1, 2011 - December 31, 2011**  
**Docket Number 2013-XXX-E**  
**Calculation of True-Up of Lost Revenues for Vintage 2**

	Residential			Non-Residential			Total
	2011	2012	2013	2011	2012	2013	
1 Lost Revenues Billed	\$ 1,923,195	\$ 5,278,303	\$ -	\$ 591,768	\$ 484,417	\$ -	\$ 1,076,185
2 Lost Revenues Owed	\$ 1,918,154	\$ 4,524,880	\$ 3,039,365	\$ 589,007	\$ 1,186,419	\$ 794,905	\$ 2,570,331
3 True Up of Lost Revenues	\$ (5,041)	\$ (753,422)	\$ 3,039,365	\$ (2,761)	\$ 702,002	\$ 794,905	\$ 1,494,146
4 Billing Factor	100%	100%	85%	100%	100%	85%	
5 True Up of Lost Revenues, after billing factor	\$ (5,041)	\$ (753,422)	\$ 2,583,460	\$ (2,761)	\$ 702,002	\$ 675,669	\$ 1,374,911

\* 2011 Lost Revenues as filed in Rider 4 (2012-303-E) and 2012 Lost Revenues as filed in Rider 3 (2011-420-E).  
 2013 Lost Revenues originally excluded from Rider 4 due to assumption that in 2012 new base rates effective 1/1/2013.

Vintage 2 Exhibit 4

Duke Energy Carolinas  
For the Period January 1, 2011 - December 31, 2011  
Docket Number 2012-XXX-E  
Allocation Factors - Vintage 2

	MWH	Res	NonRes
Company Records	55,966,072		
Company Records	20,958,243	6,646,698	14,311,545
Line 1 + Line 2	76,924,315		
Company Records	60,853		
Line 3 + Line 4	76,985,168		
Line 2 / Line 5	27.22374%	31.71400%	68.28600%

**Sales Allocator - 2011**

- 1 NC Retail/MWH Sales Allocation
- 2 SC Retail MWH Sales Allocation (Excl. Greenwood)
- 3 Total Retail, Excluding Greenwood
- 4 Greenwood Retail MWH Sales Allocation
- 5 Total Retail, including Greenwood
- Allocation 1 to state based on kWh sales**
- 6 SC Retail

**Demand Allocators - 2011**

- 7 Residential
- 8 Non Residential (SC - Excl. Greenwood)
- 9 Greenwood
- 10 Total
- 11 Wholesale Peak Demand
- 12 Total System Peak Demand

	NC MW	SC MW	Total MW
Company Records	5,179,896	1,616,026	6,795,922
Company Records	6,788,010	2,474,472	9,262,482
Company Records		13,596	13,596
Line 7 + Line 8+ Line 9	11,967,906	4,104,094	16,072,000
Company Records			1,100,855
Line 10 + Line 11			17,172,855

**Allocation 2 to state based on peak demand**

- 13 SC Retail, Excl. Greenwood

(Line 7, SC + Line 8, SC)/ Line 10 Total	25.45108%
--	-----------

**Allocation 3 SC res vs non-res Peak Demand to retail system peak**

- 14 SC Residential
- 15 SC Non-residential

Line 7, SC / Line 10 Total	10.05492%
Line 8, SC / Line 10 Total	15.39617%

**Allocation 4 SC res vs non-res Peak Demand to retail system peak for Existing DSM**

- 16 SC Residential
- 17 SC Non-residential

Line 7, SC / Line 12 Total	9.41035%
Line 8, SC / Line 12 Total	14.40921%



Duke Energy Carolinas  
For the Period January 1, 2012 - December 31, 2012 and  
For the Period January 1, 2014 - December 31, 2014  
Docket Number 2013-XXX-E  
Calculation of True-up for Vintage 3, Year 1 and estimated Lost Revenues for Year 3

**RESIDENTIAL**

	Vintage 3, Year 1 Revenue Requirement True-up	Vintage 3, Year 3 Lost Revenue Estimate
1 EE Avoided Cost Component	\$ 9,321,124	
2 DSM Avoided Cost Component	\$ 4,369,850	
3 Total Residential Avoided Cost Component	\$ 13,690,974	
4 Gross Receipts Tax and Regulatory Fee	1,004,508	
5 Total EE/DSM Residential Avoided Cost Component	\$ 13,752,693	1,241,878
6 Total Lost Revenues Vintage 3	\$ 3,780,225	\$ 1,241,878
7 Residential Save-A-Watt Revenue Requirement	\$ 17,532,918	\$ 1,241,878
8 Billing Factor	100%	85%
9 Residential Save-A-Watt Revenue Requirement	\$ 17,532,918	\$ 1,055,596
10 Residential Existing DSM Program Revenue Requirement	806,196	
11 Total Residential SAW & Existing DSM Program Revenue Requirement	\$ 18,339,114	\$ 1,055,596
12 Total Collected for Vintage 3 (Rider 3)	\$ 6,296,428	\$ -
13 Residential True-up Amount before Interest	\$ 12,042,686	\$ 1,055,596
14 Interest Amount due Company	\$ 1,296,530	\$ -
15 Residential True-up Amount with Interest	\$ 13,339,216	\$ 1,055,596

**NON-RESIDENTIAL**

	EE Participant Vintage 3, Year 1 Revenue Requirement True-up	DSM Participant Vintage 3, Year 1 Revenue Requirement True-up
16 SAW EE Avoided Cost Component	\$ 12,616,665	\$ 5,896,413
17 SAW DSM Avoided Cost Component	1,004,508	1,004,508
18 Gross Receipts Tax and Regulatory Fee	\$ 12,673,541	\$ 5,922,994
19 Total Non-Residential Avoided Cost Component	\$ 817,159	\$ 765,344
20 Total Lost Revenues Vintage 3	\$ 13,490,700	\$ 765,344
21 Non-Residential EE/DSM Revenue Requirement	100%	85%
22 Billing Factor	\$ 13,490,700	\$ 650,543
23 Total Non-Residential EE/DSM Revenue Requirement	\$ 13,490,700	\$ 650,543
24 Existing DSM Program Revenue Requirement	\$ 13,490,700	\$ 650,543
25 Total Non-Residential SAW & Existing DSM Program Revenue Requirement	\$ 4,029,994	\$ 4,752,177
26 Total Collected for Vintage 3 (Rider 3)	\$ 9,460,706	\$ 650,543
27 Non-Residential True-up Amount before Interest	\$ 1,018,551	\$ 243,169
28 Interest Amount due Company	\$ 10,479,257	\$ 2,501,818
29 Non-Residential True-up Amount with Interest	\$ 8,656,764,337	\$ 8,008,974,420
30 Projected SC Non-Residential Sales (kWh) for billing period	0.0012	0.0001
31 Non-Residential Rider EE (cents per kWh)		0.0003

Vintage 3 Exhibit 2

Duke Energy Carolinas  
For the Period January 1, 2012 - December 31, 2012  
Docket Number 2013-XX-E

Lead Impacts and Avoided Cost Revenue Requirements by Program - Vintage 3

	A	B	C
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement
<b>Residential Programs</b>			
<b>EE Programs (at 55% Avoided Cost)</b>			
1. Appliances Recycling	366	1,971,543	\$ 406,124
2. Residential Energy Assessments	1,607	10,486,549	\$ 1,877,214
3. Smart Save <sup>®</sup> for Residential Customers	24,247	224,330,902	\$ 28,316,245
4. Low Income Energy Efficiency and Weatherization Assistance	1,655	8,963,453	\$ 1,846,407
5. Energy Efficiency Education Program for Schools	47	283,678	\$ 96,950
6. Residential Retrofit Pilot	10,461	49,339,464	\$ 1,710,523
7. Home Energy Comparison Report	38,391	295,379,589	\$ 34,253,463
8. Total for Residential Conservation Programs			\$ 38,391
			SC kWh Sales Allocation Factor (V3 Exhibit 4, Line 6)
			\$ 27.21221%
			\$ 27.21221%
			\$ 27.21221%
			\$ 27.21221%
			\$ 27.21221%
			\$ 27.21221%
			\$ 27.21221%
			\$ 485,471
			\$ 9,321,124
			SC Residential Peak Demand Allocation Factor (V3 Exhibit 4, Line 14)
			\$ 10.72480%
			(1) \$ 4,369,850

	A	B	C
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement
<b>Non-Residential Programs</b>			
<b>EE Programs (at 55% Avoided Cost)</b>			
10. Smart Save <sup>®</sup> for Non-Residential Customers Lighting	12,689	73,807,092	\$ 16,482,369
11. Smart Save <sup>®</sup> for Non-Residential Customers Motors	1,132	5,967,650	\$ 1,441,241
12. Smart Save <sup>®</sup> for Non-Residential Customers - Other Prescriptive (Process Equipment	366	1,950,854	\$ 528,891
13. Smart Save <sup>®</sup> for Non-Residential Customers - Energy Star Food Service Products	1,716	4,120,481	\$ 2,157,185
14. Smart Save <sup>®</sup> for Non-Residential Customers - HVAC	15,371	113,380,706	\$ 25,199,697
15. Smart Save <sup>®</sup> for Non-Residential Customers - Custom Rebate	775	4,127,229	\$ 554,601
16. Smart Energy Now	32,049	203,354,012	\$ 46,365,984
17. Total for Non-Residential Conservation Programs			\$ 74,569,567
			SC Non-Residential Peak Demand Allocation Factor (V3 Exhibit 4, Line 15)
			\$ 14.47140%
			(1) \$ 5,896,413

	A	B	C
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System Avoided Cost Revenue Requirement
<b>Total DSM Programs (at 75% Avoided Cost)</b>	645,442		\$ 40,745,283
			SC Retail Peak Demand Allocation Factor (V3 Exhibit 4, Line 13)
			\$ 25.19620%
			(1) \$ 10,266,263
<b>Total DSM Program Breakdown</b>			
19. Power Manager (Residential)	288,706		\$ 16,962,799
20. Power Share (Non-Residential)	376,736		\$ 23,782,490
21. Total DSM	645,442		\$ 40,745,283

(1) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas  
 For the Period January 1, 2012 - December 31, 2012  
 Docket Number 2013-XXX-E  
 Existing DSM Program Costs - Vintage 3

Vintage 3 Exhibit 3

	Year 2012	
	Residential	Non-residential
1 Estimated total IS/SG credits to be paid for native load programs	\$ 7,954,689	
2 SC retail allocation factor - system peak demand	10.08937%	13.61398%
3 SC retail share IS/SG program costs	\$ 802,578	\$ 1,082,950
4 Gross Receipts Tax and Regulatory Fee	1.004508	1.004508
5 SC Retail Existing DSM Revenue Requirement	\$ 806,196	\$ 1,087,832

PROGRAM	
6 INTERRUPTIBLE SERVICE CREDITS	4,847,739
7 STANDBY GENERATOR PAYMENTS	1,568,082
8 WHOLESAL A/C LOAD CONTROL CREDITS	368,288
9 WHOLESAL INTERRUPTIBLE SERVICE CREDITS	1,170,581
10 TOTAL CREDITS	\$ 7,954,689

Vintage 3 Exhibit 4

Duke Energy Carolinas  
For the Period January 1, 2012 - December 31, 2012  
Docket Number 2013-XXX-E  
Allocation Factors - Vintage 3

	MWH	Res	NonRes
Company Records	54,555,907		
Company Records	20,415,263	6,112,281	14,302,982
Line 1 + Line 2	74,971,170		
Company Records	51,264		
Line 3 + Line 4	75,022,434		
Line 2 / Line 5	27.21221%	29.93976%	70.06024%

**Sales Allocator - 2012**

- 1 NC Retail/MWH Sales Allocation
- 2 SC Retail MWH Sales Allocation (Excl. Greenwood)
- 3 Total Retail, Excluding Greenwood
- 4 Greenwood Retail MWH Sales Allocation
- 5 Total Retail, including Greenwood
- Allocation 1 to state based on kWh sales
- 6 SC Retail

**Demand Allocators - 2012**

- 7 Residential
- 8 Non Residential (SC - Excl. Greenwood)
- 9 Greenwood
- 10 Total
- 11 Wholesale Peak Demand
- 12 Total System Peak Demand

	NC MW	SC MW	Total MW
Company Records	5,588,503	1,720,365	7,308,868
Company Records	6,397,286	2,321,357	8,718,643
Company Records	-	13,489	13,489
Line 7 + Line 8+ Line 9	11,985,789	4,055,211	16,041,000
Company Records			1,010,270
Line 10 + Line 11			17,051,270

**Allocation 2 to state based on peak demand**

- 13 SC Retail, Excl. Greenwood

25.19620%
-----------

**Allocation 3 SC res vs non-res Peak Demand to retail system peak**

- 14 SC Residential
- 15 SC Non-residential

10.72480%
14.47140%

**Allocation 4 SC res vs non-res Peak Demand to retail system peak for Existing DSM**

- 16 SC Residential
- 17 SC Non-residential

10.08937%
13.61398%

Vintage 3 Exhibit 5

Duke Energy Carolinas  
For the Period January 1, 2012 - December 31, 2012  
Docket Number 2013-XXX-E  
Actual Program Costs - Vintage 3

	System Costs of January 1, 2012 - December 31, 2012	Months	Residential	Non-Residential
<b>Energy Efficiency (EE) Programs:</b>				
1 Residential Energy Assessments	\$ 2,809,237	\$	2,809,237	
2 Residential Home Retrofit	153,225		153,225	
3 Home Energy Comparison Report	3,012,165		3,012,165	
4 Residential Neighborhood Program	110,145		110,145	
5 Residential Smart Saver	19,517,575		19,517,575	
6 Low Income Services	20,194		20,194	
7 Appliance Recycle Program	301,456		301,456	
8 Energy Efficiency Education Schools Program	2,896,013		2,896,013	
9 Nonresidential Energy Assessments	1,454,057	\$		1,454,057
10 Nonresidential Smart Energy Now	1,036,352			1,036,352
11 Nonresidential Smart Saver	18,991,763			18,991,763
12 Subtotal EE Program Costs	\$ 50,302,182	\$	28,820,010	\$ 21,482,172
<b>Demand-Side Management (DSM) Programs:</b>				
13 Power Manager	\$ 12,553,832	\$	12,553,832	
14 Power Share	15,409,442			15,409,442
15 Subtotal DSM Program Costs	\$ 27,963,274	\$	12,553,832	\$ 15,409,442
<b>16 Total EE &amp; DSM Program Costs - Vintage 3</b>	<b>\$ 78,265,456</b>	<b>\$</b>	<b>41,373,842</b>	<b>\$ 36,891,614</b>

Duke Energy Carolinas  
 For the Period January 1, 2014 - December 31, 2014  
 Docket Number 2013-XXX-E  
 Calculation of Estimate for Vintage 4, Year 2 Lost Revenues

**RESIDENTIAL**

- 1 Total Lost Revenues
- 2 Billing Factor
- 3 Residential Save-A-Watt Revenue Requirement

Vintage 4, Year 2 Estimated Lost Revenues	
\$	1,440,552
\$	1,224,469
	85%

See Exhibit A for rate

- R5 Exhibit 1, Line 51
- Line 1 \* Line 2

**NON-RESIDENTIAL**

- 4 Total Lost Revenues Vintage 4
- 5 Billing Factor
- 6 Non-Residential Save-A-Watt Revenue Requirement
- 7 Projected SC Non-Residential Sales (kWh) for billing period
- 8 Non-Residential Rider EE (cents per kWh)

EE Participants Vintage 4, Year 2 Estimated Lost Revenues	
\$	1,575,633
\$	1,339,288
	85%
	8,744,622,797
	0.0153

- R5 Exhibit 1, Line 58
- Line 4 \* Line 5
- R4 Exhibit 3, Line 25
- Line 6/ Line 7 \* 100

**Duke Energy Carolinas LLC**  
**Docket No. 2013-xxx-E**  
**Estimated Annual Riders Applicable to Residential Customers**

Line	Energy Efficiency Programs	Reference	Year 1
1	Residential EE Program Cost	McManeus Exhibit 1, Line 1	\$11,122,895
2	Residential EE Earned Utility Incentive	McManeus Exhibit 1, Line 2	\$2,005,579
3	Total EE Program Cost and Incentive Components	Line 1 + Line 2	\$13,128,474
4	Residential DSM Program Cost	McManeus Exhibit 1, Line 4	\$4,046,230
5	Residential DSM Earned Utility Incentive	McManeus Exhibit 1, Line 5	\$1,006,663
6	Total DSM Program Cost and Incentive Components	Line 4 + Line 5	\$5,052,893
7	Residential Existing DSM Program Revenue Requirement	McManeus Exhibit 4	\$806,196
8	Total EE/DSM Program Cost and Incentive Components	Line 3 + Line 6+ Line 7	\$18,987,563
9	Revenue-related taxes and regulatory fees factor		1.004508
10	Total EE Program Cost and Incentive Revenue Requirement	Line 8 * Line 9	\$19,073,159
11	Residential Net Lost Revenues	Duff Exhibit 3, Line 103	\$3,286,819
12	Total Residential EE Revenue Requirement	Line 10 + Line 11	\$22,359,978
13	Projected SC Residential Sales (kWh)	McManeus Exhibit 2, Line 3	6,505,979,955
14	<b>NC Residential EE Billing Factor (Cents/kWh)</b>	<b>Line 12 / Line 13</b>	<b>0.3437</b>

## Duke Energy Carolinas LLC

Docket No. 2013-xxx-E

Estimated Annual Riders Applicable to the Non-Residential Customers

Line	Reference	Year 1
<b>Non-Residential Energy Efficiency Programs</b>		
1	Non-Residential EE Program Cost	\$6,058,265
2	Non-Residential EE Earned Utility Incentive	\$1,507,239
3	Total EE Program Cost and Incentive Components	\$7,565,504
4	Revenue-related taxes and regulatory fees factor	1,004,508
5	Total Non-Residential EE Program Cost and Incentive Revenue Requirements	\$7,599,609
6	Non-Residential Net Lost Revenues	\$748,151
7	Total Non-Residential EE Revenue Requirement	\$8,347,760
8	Projected NC Residential Sales (kWh)	8,513,956,840
9	<b>NC Non-Residential EE billing factor (Cents/kWh)</b>	<b>0.0980</b>
<b>Non-Residential DSM Programs</b>		
10	Non-Residential DSM Program Cost	\$5,459,739
11	Non-Residential DSM Earned Utility Incentive	\$1,358,331
12	Total Non-Residential DSM Program Cost and Incentive Components	\$6,818,070
13	Non-Residential Existing DSM Program Revenue Requirement	\$1,087,832
14	Total Non-Residential SAW & Existing DSM Program Revenue Requirement	\$7,905,902
15	Revenue-related taxes and regulatory fees factor	1,004,508
16	Total Non-Residential DSM Revenue Requirement	\$7,941,542
17	Projected NC Non-Residential Sales (kWh)	7,902,098,311
18	<b>NC Non-Residential DSM billing factor</b>	<b>0.1005</b>



Duke Energy Carolinas  
For the Period February 1, 2010 - December 31, 2014  
Docket Number 2013-000-E  
South Carolina Lost Revenues Summary

Vintage 1	Participation							Total
	2009	2010	2011	1 Mth 2012	2012	2013	2014	
<b>Residential</b>								
2 Residential Energy Assessments		\$ 64,856	\$ 94,572	\$ 7,852				\$ 167,280
3 Smart Saver® for Residential Customers		1,558,407	4,559,617	378,509				6,496,533
4 Low Income Energy Efficiency and Weatherization Assistance		22,629	46,343	3,847				72,818
4 Energy Efficiency Education Program for Schools		11,845	29,153	2,420				43,518
5 Home Energy Comparison Report		52,262	-	-				52,262
6 Total Lost Revenues		\$ 1,710,099	\$ 4,729,684	\$ 392,678				\$ 6,832,412
<b>Non-Residential</b>								
7 Smart Saver® for Non-Residential Customers Lighting		\$ 471,514	\$ 947,824	\$ 80,366				\$ 1,499,704
8 Smart Saver® for Non-Residential Customers Motors		12,493	23,802	2,018				38,313
9 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)		-	-	-				-
10 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products		2,971	6,215	518				9,704
11 Smart Saver® for Non-Residential Customers - HVAC		26,652	47,292	3,943				77,887
12 Smart Saver® for Non-Residential Customers - Custom Rebate		55,921	100,075	8,759				164,755
13 Total Lost Revenues		\$ 569,552	\$ 1,125,207	\$ 95,604				\$ 1,790,363
<b>Vintage 2</b>								
<b>Residential</b>								
14 Residential Energy Assessments			\$ 64,436		\$ 131,238	\$ 88,166		\$ 283,839
15 Smart Saver® for Residential Customers			1,765,029		4,359,512	2,928,274		9,052,814
16 Low Income Energy Efficiency and Weatherization Assistance			1,409		4,156	2,792		8,358
17 Energy Efficiency Education Program for Schools			13,016		28,917	19,422		61,355
18 Residential Retrofit Pilot			477		3,058	711		2,246
19 Home Energy Comparison Report			23,786		-	-		73,786
20 Total Lost Revenues			\$ 1,918,154		\$ 4,574,880	\$ 3,039,365		\$ 9,482,399
<b>Non-Residential</b>								
21 Smart Saver® for Non-Residential Customers Lighting			\$ 336,905		\$ 669,042	\$ 448,181		\$ 1,454,128
22 Smart Saver® for Non-Residential Customers Motors			33,683		79,536	53,266		166,485
23 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)			-		-	-		-
24 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products			1,032		9,158	6,139		16,329
25 Smart Saver® for Non-Residential Customers - HVAC			25,914		49,079	32,894		107,897
26 Smart Saver® for Non-Residential Customers - Custom Rebate			191,464		379,604	254,425		825,493
27 Smart Energy Now			-		-	-		-
28 Total Lost Revenues			\$ 589,007		\$ 1,186,419	\$ 794,905		\$ 2,570,331
<b>Vintage 3 - Yr. 1 and Yr. 3 (2012, 2014)</b>								
<b>Residential</b>								
29 Appliance Recycling					\$ 8,765		\$ 35,285	\$ 44,049
30 Residential Energy Assessments					66,878		70,243	137,122
31 Home Energy Comparison Report					1,735,800		-	1,735,800
32 Smart Saver® for Residential Customers					1,879,766		1,085,313	2,965,079
33 Low Income Energy Efficiency and Weatherization Assistance					-		-	-
34 Energy Efficiency Education Program for Schools					89,017		51,037	140,053
35 Residential Retrofit Pilot					-		-	-
36 Total Lost Revenues					\$ 3,780,225		\$ 1,241,878	\$ 4,978,053
<b>Non-Residential</b>								
37 Smart Saver® for Non-Residential Customers Lighting					\$ 446,682		\$ 548,238	\$ 994,920
38 Smart Saver® for Non-Residential Customers Motors					27,513		26,772	49,285
39 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)					-		-	-
40 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products					14,032		35,726	49,758
41 Smart Saver® for Non-Residential Customers - HVAC					15,621		18,395	34,016
42 Smart Saver® for Non-Residential Customers - Custom Rebate					338,310		136,214	454,524
43 Smart Energy Now					-		-	-
44 Total Lost Revenues					\$ 837,159		\$ 765,344	\$ 1,582,503
<b>Vintage 4 - Yr. 2 (2014)</b>								
<b>Residential</b>								
45 Appliance Recycling							\$ 311,387	\$ 311,387
46 Residential Energy Assessments							94,014	94,014
47 Home Energy Comparison Report							-	-
48 Smart Saver® for Residential Customers							750,835	750,835
49 Low Income Energy Efficiency and Weatherization Assistance							193,187	193,187
50 Energy Efficiency Education Program for Schools							82,129	82,129
51 Total Lost Revenues							\$ 1,440,552	\$ 1,440,552
<b>Non-Residential</b>								
52 Smart Saver® for Non-Residential Customers Lighting							\$ 655,868	\$ 655,868
53 Smart Saver® for Non-Residential Customers Motors							52,394	52,394
54 Smart Saver® for Non-Residential Customers - Other Prescriptive (Process Equipment)							231	231
55 Smart Saver® for Non-Residential Customers - Energy Star Food Service Products							6,893	6,893
56 Smart Saver® for Non-Residential Customers - HVAC							48,664	48,664
57 Smart Saver® for Non-Residential Customers - Custom Rebate							811,583	811,583
58 Total Lost Revenues							\$ 1,575,633	\$ 1,575,633

(a) Lost revenues were estimated by allocating estimated system lost revenues to SC retail. True-ups of estimated lost revenues are based on state specific amounts.  
(b) Vintage 3, Year 3 (2014) lost revenues were computed for July-December 2012 participants

Rider 5 Exhibit 2

**Duke Energy Carolinas**  
**For the Period February 1, 2010 - December 31, 2013**  
**Docket Number 2013-XXX-E**  
**DSM/EE Actual Revenues Collected from Riders 1-3 (By Vintage)**  
**and Estimated 2013 Collections from Rider 4 (by Vintage)**

Line		Actual 2010 Rider 1	Actual 2011 Rider 2	Actual 2012 Rider 3	Actuals Total	Estimated 2013 Rider 4*
	<b>Residential</b>					
1	EE and DSM	\$ 11,158,939	\$ 2,523,002	\$ 5,612,149	\$ 19,294,090	\$ 420,791
2	EE and DSM	\$	\$ 15,053,260	\$ 4,243,591	\$ 19,296,851	\$ 3,861,472
3	EE and DSM			\$ 6,296,428	\$ 6,296,428	\$ 2,898,497
	<b>Non-Residential</b>					
4	EE	\$ 1,792,808	\$ 108,741	\$ 1,624,073	\$ 3,525,622	\$ 1,861,453
5	EE	\$	\$ 3,721,416	\$ 423,569	\$ 4,144,985	\$ 5,340,611
6	EE			\$ 4,029,994	\$ 4,029,994	\$ 1,132,101
7	DSM	\$ 2,979,777		\$ 1,050,109	\$ 4,029,886	\$ (76,741)
8	DSM		\$ 5,017,015		\$ 5,017,015	\$ 1,332,206
9	DSM			\$ 4,752,177	\$ 4,752,177	\$ -
10	<b>Total</b>	<b>\$ 15,931,524</b>	<b>\$ 26,423,434</b>	<b>\$ 28,032,090</b>	<b>\$ 70,387,048</b>	<b>\$ 16,770,390</b>

\* Estimate of Rider 4 revenues represents the revenue requirement before interest as filed in Docket 2012-303E

2014 Sales

Spring 2013 Sales Forecast - kWhs

Adjusted SC Retail Sales Forecast (excludes Greenwood sales)

1 Residential	Company Records	6,554,020,023
2 Factor to exclude Greenwood	Line 28	99.26701%
3 Residential sales excluding Greenwood	Line 1 * Line 2	6,505,979,712
4 Non-Residential	Company Records	14,571,683,651
5 Factor to exclude Greenwood	Line 31	99.95715%
6 Non-Residential sales excluding Greenwood	Line 4 * Line 5	14,565,439,685
7 Total Retail sales excluding Greenwood	Line 3 + Line 6	21,071,419,397

Opt Out Sales

2012 kWh Usage	
8 EE	5,587,051,280
9 DSM	6,284,940,065
Vintage 2 Opt Out	5,904,636,560
10 EE	6,522,762,065
11 DSM	
Vintage 3 Opt Out	5,908,675,348
12 EE	6,556,465,265
13 DSM	
Vintage 4 Opt Out	5,820,816,888
14 EE	6,432,675,417
15 DSM	

Non-Residential Forecast Sales Less Opt Out

16 Total Non-Residential	Line 6	V1 EE Rate	V1 DSM Rate	V2 EE Rate	V2 DSM Rate	V3 EE Rate	V3 DSM Rate	V4 EE Rate	V4 DSM Rate
17 Less V1 EE Opt Out	Line 8	Components	Components	Components	Components	Components	Components	Components	Components
18 Less V1 DSM Opt Out	Line 9	14,565,439,685	14,565,439,685	14,565,439,685	14,565,439,685	14,565,439,685	14,565,439,685	14,565,439,685	14,565,439,685
19 Less V2 EE Opt Out	Line 10	5,587,051,280	6,284,940,065	5,904,636,560					
20 Less V2 DSM Opt Out	Line 11				6,522,762,065				
21 Less V3 EE Opt Out	Line 12					5,908,675,348			
22 Less V3 DSM Opt Out	Line 13						6,556,465,265		
23 Less V4 EE Opt Out	Line 14							5,820,816,888	
24 Less V4 DSM Opt Out	Line 15								6,432,675,417
25 Sales for Rider Calculation	Line 16 - (Lines 17-24)	8,378,388,405	8,280,499,020	8,660,803,125	8,042,677,620	8,656,764,337	8,008,974,420	8,744,622,797	8,132,764,268

Factor to Exclude Greenwood Sales from Forecast:

26 Total SC Residential Sales	6,157,414	
27 Greenwood Residential Sales	45,133	
28 SC Residential Sales excluding Greenwood	6,112,281	99.26701% Line 28 / Line 26
29 Total SC Non-Residential Sales	14,309,113	
30 Greenwood Non-Residential Sales	6,131	
31 SC Non-Residential Sales excluding Greenwood	14,302,982	99.95715% Line 31 / Line 29
32 Total SC Retail Sales	20,466,527	
33 Greenwood Retail Sales	51,264	
34 SC Retail Sales excluding Greenwood	20,415,263	

Duke Energy Carolinas  
For the Period February 1, 2010 - December 31, 2013  
Docket Number 2013-00X-E  
Residential Interest Calculation True-up - Vintage 1

**Residential**

**Vintage 1**

	2010	2011	2012	2013	Total
1 Revenue Requirement	\$ 14,413,173	\$ 4,729,684	\$ 392,628	\$ -	\$ 19,535,485
2 Revenue Collections	\$ 11,158,939	\$ 2,523,002	\$ 5,612,149	\$ 420,791	\$ 19,714,881
3 (Over) / Under Collection	\$ 3,254,234	\$ 2,206,682	\$ (5,219,521)	\$ (420,791)	\$ (179,395)
4 Cumulative (Over)/Under Collection	\$ 3,254,234	\$ 5,460,917	\$ 241,396	\$ (179,395)	\$ 8,712,552
5 Average Balance (Over)/Under Collection	\$ 1,627,117	\$ 4,357,576	\$ 2,851,156	\$ 31,000	\$ 8,816,849
6 Monthly rate (WACC)	0.006245	0.006245	0.005971	0.005946	0.005946
7 Number of Months	12	12	12	12	48
8 Interest Due (Owed)	\$ 121,936	\$ 326,557	\$ 204,291	\$ 2,212	\$ 654,996
9 Interest Paid (Returned) in Prior Rider					\$ 706,718
10 Interest Due - Rider 5					\$ (51,722)
11 Gross Receipts Tax					1,004,508
12 Interest Due - including GRT - Rider 5					\$ (51,955)

13 Weighted average cost of capital (WACC)

7.4938% NOTE A 7.4938% NOTE A 7.1650% NOTE B 7.1351% NOTE C

NOTE A: Docket 2009-226-E

NOTE B: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)

NOTE C: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate

NOTE D: Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E

**Vintage 2**

	2011	2012	2013	Total
14 Revenue Requirement	\$ 18,909,608	\$ 4,524,880	\$ 2,583,460	\$ 26,017,948
15 Revenue Collections	\$ 15,053,260	\$ 4,243,591	\$ 3,861,472	\$ 23,158,323
16 (Over) / Under Collection	\$ 3,856,348	\$ 281,289	\$ (1,278,012)	\$ 2,859,625
17 Cumulative (Over)/Under Collection	\$ 3,856,348	\$ 4,137,637	\$ 2,859,625	\$ 10,853,610
18 Average Balance (Over)/Under Collection	\$ 1,928,174	\$ 3,996,993	\$ 3,498,631	\$ 9,423,798
19 Monthly rate (WACC)	0.006245	0.005971	0.005946	0.005946
20 Number of Months	12	12	12	36
21 Interest Due (Owed)	\$ 144,497	\$ 286,393	\$ 249,634	\$ 680,524
22 Interest Paid (Returned) in Prior Rider				\$ 581,382
23 Interest Due - Rider 5				\$ 99,142
24 Gross Receipts Tax				1,004,508
25 Interest Due - including GRT - Rider 5				\$ 99,589

26 Weighted average cost of capital (WACC)

7.4938% NOTE A 7.4938% NOTE A 7.1650% NOTE B 7.1351% NOTE C

NOTE A: Docket 2009-226-E

NOTE B: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)

NOTE C: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate

NOTE D: Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E adjusted for GRT update

**Duke Energy Carolinas**  
**For the Period January 2012 - December 31, 2013**  
**Docket Number 2013-XXX-E**  
**Residential Interest Calculation True-up - Vintage 3**

**Residential**

<b>Vintage 3</b>	<u>2012</u>	<u>2013</u>	<u>Total</u>
1 Revenue Requirement	\$ 18,339,114	\$ 2,898,497	\$ 21,237,611
2 Revenue Collections	\$ 6,296,428	\$ 2,898,497	\$ 9,194,925
3 (Over) / Under Collection	\$ 12,042,686	-	\$ 12,042,686
4 Cumulative (Over)/Under Collection	\$ 12,042,686	\$ 12,042,686	
5 Average Balance (Over)/Under Collection	\$ 6,021,343	\$ 12,042,686	
6 Monthly rate (WACC)	0.005971	0.005946	
7 Number of Months	12	12	
8 Interest Due (Owed)	\$ 431,441	\$ 859,270	\$ 1,290,711
9 Interest Paid (Returned) in Prior Rider	N/A		-
10 Interest Due - Rider 5			\$ 1,290,711
11 Gross Receipts Tax			1,004,508
12 Interest Due - including GRT - Rider 5			\$ 1,296,530
13 Weighted average cost of capital (WACC)	7.1650%	7.1351%	

NOTE A                      NOTE B

NOTE A: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)  
 NOTE B: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate  
 NOTE C: Revenue Requirement & Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E

Duke Energy Carolinas  
For the Period February 1, 2010 - December 31, 2012  
Docket Number 2013-XXX-E  
Non-Residential Interest Calculation True-up - Vintages 1 and 2

**Non-Residential**

Vintage 1	2010	2011	2012	2013	Total
1 Revenue Requirement	\$ 4,407,757	\$ 1,220,811	\$ -	\$ -	\$ 5,628,568
2 Revenue Collections	\$ 1,792,808	\$ 108,741	\$ 1,624,073	\$ 1,861,453	\$ 5,387,075
3 (Over) / Under Collection	\$ 2,614,949	\$ 1,112,070	\$ (1,624,073)	\$ (1,861,453)	\$ 241,493
4 Cumulative (Over)/Under Collection	\$ 2,614,949	\$ 3,727,019	\$ 2,102,946	\$ 241,493	\$ 8,726,407
5 Average Balance (Over)/Under Collection	\$ 1,307,475	\$ 3,170,984	\$ 2,914,982	\$ 1,172,219	\$ 8,565,666
6 Monthly rate (WACC)	0.006245	0.006245	0.005971	0.005946	0.005946
7 Number of Months	12	12	12	12	48
8 Interest Due (Owed)	\$ 97,982	\$ 237,634	\$ 208,864	\$ 83,640	\$ 628,120
9 Interest Paid (Returned) in prior rider					\$ 611,808
10 Interest Due - Rider 5					\$ 16,312
11 Gross Receipts Tax					\$ 1,004,508
12 Interest Due - including GRT - Rider 5					\$ 16,386
13 Weighted average cost of capital (WACC)	7.4938%	7.4938%	7.1650%	7.1351%	7.1351%

NOTE A: Docket 2009-226-E  
NOTE B: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)  
NOTE C: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate  
NOTE D: Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E

Vintage 2	2011	2012	2013	Total
14 Revenue Requirement	\$ 9,059,203	\$ 1,186,419	\$ 675,669	\$ 10,921,291
15 Revenue Collections	\$ 3,721,416	\$ 423,569	\$ 5,340,611	\$ 9,485,596
16 (Over) / Under Collection	\$ 5,337,787	\$ 762,850	\$ (4,664,942)	\$ 1,435,695
17 Cumulative (Over)/Under Collection	\$ 5,337,787	\$ 6,100,637	\$ 1,435,695	\$ 12,874,119
18 Average Balance (Over)/Under Collection	\$ 2,668,894	\$ 5,719,212	\$ 3,768,166	\$ 12,156,272
19 Monthly rate (WACC)	0.006245	0.005971	0.005946	0.005946
20 Number of Months	12	12	12	36
21 Interest Due (Owed)	\$ 200,007	\$ 409,793	\$ 268,866	\$ 878,666
22 Interest Paid (Returned) in prior rider				\$ 804,082
23 Interest Due - Rider 5				\$ 74,584
24 Gross Receipts Tax				\$ 1,004,508
25 Interest Due - including GRT - Rider 5				\$ 74,920
26 Weighted average cost of capital (WACC)	7.4938%	7.4938%	7.1650%	7.1351%

NOTE A: Docket 2009-226-E  
NOTE B: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)  
NOTE C: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate  
NOTE D: Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E

Duke Energy Carolinas  
 For the Period January 2012 - December 31, 2013  
 Docket Number 2013-XXX-E  
 Non-Residential Interest Calculation True-up - Vintage 3

**Non-Residential**

**Vintage 3 - Energy Efficiency**

	2012	2013	Total
1 Revenue Requirement	\$ 13,490,700	\$ 1,132,101	\$ 14,622,801
2 Revenue Collections			
3 (Over) / Under Collection	\$ 4,029,994	\$ 1,132,101	\$ 5,162,095
4 Cumulative (Over)/Under Collection	\$ 9,460,706	-	\$ 9,460,706
5 Average Balance (Over)/Under Collection	\$ 4,730,353	\$ 9,460,706	
6 Monthly rate (WACC)	0.5971%	0.5946%	
7 Number of Months	12	12	
8 Interest Due (Owed)	\$ 338,939	\$ 675,040	\$ 1,013,980
9 Interest Paid (Returned) in prior rider	N/A		
10 Interest Due - Rider 5	\$ 1,013,980		\$ 1,013,980
11 Gross Receipts Tax			1,004,508
12 Interest Due - including GRT - Rider 5			\$ 1,018,551

13 Weighted average cost of capital (WACC)

7.1650% NOTE A  
 7.1351% NOTE B

NOTE A: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)  
 NOTE B: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate  
 NOTE C: Revenue Requirement & Collections for 2013 are an estimate equal to the revenue requirement before interest in Docket 2012-303-E

**Vintage 3 - DSM**

	2012	2013	Total
14 Revenue Requirement	\$ 7,010,826	-	\$ 7,010,826
15 Revenue Collections	\$ 4,752,177	-	\$ 4,752,177
16 (Over) / Under Collection	\$ 2,258,649	-	\$ 2,258,649
17 Cumulative (Over)/Under Collection	\$ 2,258,649	\$ 2,258,649	
18 Average Balance (Over)/Under Collection	\$ 1,129,324	\$ 2,258,649	
19 Monthly rate (WACC)	0.5971%	0.5946%	
20 Number of Months	12	12	
21 Interest Due (Owed)	\$ 80,918	\$ 161,159	\$ 242,077
22 Interest Paid (Returned) in Prior Rider	N/A		
23 Interest Due - Rider 5	-		-
24 Gross Receipts Tax			\$ 242,077
25 Interest Due - including GRT - Rider 5			\$ 1,004,508
26 Weighted average cost of capital (WACC)			\$ 243,169

26 Weighted average cost of capital (WACC)

7.1650% NOTE A  
 7.1351% NOTE B

NOTE A: Wtd. Avg. 1 month Docket 2009-226-E and 11 months Docket 2011-271-E (7.1351%)  
 NOTE B: 12 Months of DOCKET 2011-271-E (7.1351%) - No estimate of 3 months of 2013-59-E - use previous WACC as estimate

## Appliance Recycling Program

### A. Description

The Appliance Recycling Program (“Program”) promotes the removal and responsible disposal of operating refrigerators and freezers from Duke Energy Carolinas, LLC’s (the “Company”) residential customers. The refrigerator or freezer must have a capacity of at least 10 cubic feet but not more than 30 cubic feet. The Program recycles approximately 95% of the material from the harvested appliances.

### Audience

Eligible Program participants include the Company’s residential customers who own operating refrigerators and freezers used in individually metered residences.

### B & C. Impacts, Participants and Expenses

Appliance Recycle <sup>12</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
South Carolina Nominal Avoided Cost	\$0.0	\$1.0	
Program Cost	\$0.0	\$0.3	
MW	\$0.0	0.4	
MWH	\$0.0	1,971.5	
Units <sup>3</sup>		1,990	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as filed comparison for Appliance Recycle because it was not included in the original filing.

### D. Qualitative Analysis

#### Highlights

The Program launched on August 21, 2012 and features a state of the art recycling center in Charlotte. The Program’s website is operational and can be viewed at <http://www.duke-energy.com/south-carolina/savings/appliance-recycling.asp>. Screen captures of the website are included in the Appendix. The Company selected JACO as the third party Program administrator by using a competitive bid process.

#### Key Activities

The Program was promoted through bill inserts, the Company’s website, digital media, mass media, and public relations.

The Program was approved by the Public Service Commission of South Carolina on May 9, 2012 and North Carolina Utilities Commission on July 17, 2012. As a result of launching late in 2012, the participation for 2012 was lower than originally estimated for the year.

### E. Marketing Strategy

The marketing campaign incorporates the following three-pronged approach to reach customers and promote the Program:

- Mass media/advertising
  - Major TV broadcast media filmed and aired Program collection crews making home appliance pickups in both states.
- Public relations



## Appliance Recycling Program

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- The Company's Corporate Communications and Runyon, Saltzman & Einhorn – JACO advertising agency – developed and released Program launch alerts to key media outlets in NC and SC.
- Media was invited to the new Carolinas Recycle Center in Charlotte to view the recycling of the appliance picked up during the Program launch.
- Retail marketing/promotions.
  - The Company and JACO are developing a retail program with one or more major appliance retailers to gauge customer acceptance of the channel.

Program marketing channels include but are not limited to:

- Bill Inserts
  - 34% of Carolinas customers surveyed indicated bill inserts as “How they heard about the Program.”
- State landing page promos on duke-energy.com
- On Line Services web site promos
- Press releases and press events
- Retail store point-of-sale
  - Planned for 2013
- Newspaper ads and advertorials
- Residential opt-in email blasts
- Direct mail with refrigerator magnet
- Digital marketing
  - Web banner ads and internet radio

The marketing campaign accentuates the following key messages:

- An older, inefficient refrigerator or freezer typically consumes **1,500 kilowatt hours annually**. A new Energy Star<sup>®</sup> rated unit typically consumes **400 to 500 kilowatt hours annually**.
- Older refrigerators may **use up to four times more electricity** than newer Energy Star<sup>®</sup> rated units. Many second refrigerators are used only occasionally or are not full, wasting even more energy.
- JACO will remove the old working unit and dispose of it in an environmentally safe way.
- Customers will receive an incentive for recycling an eligible appliance.

### F. Evaluation, Measurement and Verification

Process evaluations began in December 2012 and continued through April 2013 and included the development of the survey instruments for Program management and Program participants. Analysis and the final process report are anticipated for the third quarter of 2013.

The impact evaluation plans are currently under revision to include a billing analysis in addition to the engineering analysis proposed. This requires an additional amount of pre- and post-installation before impacts can be assessed.

# Appliance Recycling Program

## G. Appendix

### Appliance Recycling Program – web pages

South Carolina » Save Energy & Money » Energy & Money Saving Offers » Appliance Recycling

Energy & Money Saving Offers

- Home Energy House Call
- Power Manager®
- Smart Saver®
- Appliance Recycling ▶

## Appliance Recycling

Earn \$30.  
Free pickup.

Schedule Pickup! ▶

Sign up for Appliance Recycling

RECYCLE

### Got fridge? Got freezer? Save \$150 in energy costs.

Schedule Pickup! ▶ More Info ▶

Appliance Recycling  
How it works

Play Video ▶

South Carolina » Save Energy & Money » Energy & Money Saving Offers » Appliance Recycling » Frequently Asked Questions

Appliance Recycling

- Sign Up
- Frequently Asked Questions ▶
- Appliance Calculator

## Appliance Recycling

Program Details

Appliance Recycling FAQs Questions

Schedule Pickup! ▶

RECYCLE

### Get \$30 for recycling your old fridge or freezer!

To help you save money and energy, Duke Energy partners with JACO Environmental – one of the country's largest appliance recyclers – to offer FREE refrigerator and freezer recycling. It's quick and convenient – and you'll get \$30 for participating.

### And we'll pick up your refrigerator or freezer for free!

Secondary refrigerators and freezers can add up to \$150 to your power bill each year. Recycling your unit will help you reduce your energy use and keep harmful materials out of landfills.

#### Here's how the Appliance Recycling program works:

- Schedule an appliance pickup online or by phone.
- We'll come to your house – at a date/time that's convenient for you – and pick up your appliance for free.
- Your refrigerator or freezer will then go to a local recycling center, where 95 percent of it will be recycled.
- We'll send you a check for \$30. Or, you can donate the funds directly to the [Share the Warmth](#) assistance program.

#### Get started today!

Scheduling an appliance pickup is easy. Simply use our online form or call 855-398-6200. Our representatives are available by phone between 7 a.m. and 8 p.m. on weekdays, and between 10 a.m. and 5 p.m. on Saturdays.

Schedule Pickup! ▶ Or call 855-398-6200

Schedule an Appliance Pickup Today

## We want to pay you \$30

Schedule Pickup! ▶

Or simply call us at 855-398-6200

Representatives available  
Monday - Friday  
7 a.m. to 8 p.m.

Saturday  
10 a.m. to 5 p.m.

## Energy Efficiency Education Program for Schools

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### A. Description

The Energy Efficiency Education Program for Schools (“Program”) is an energy efficiency program available in North Carolina and South Carolina. The Program is available to kindergarten through twelfth grade students enrolled in public and private schools who reside in households served by Duke Energy Carolinas, LLC (the “Company”).

The Program provides principals and teachers with an innovative curriculum that educates students about energy, resources, how energy and resources are related, ways energy is wasted and how to be more energy efficient. The materials focus on concepts such as energy, renewable fuels and energy efficiency through classroom and take home assignments, enhanced with a live theatrical production performed by two professional actors.

The Program performance educates students about energy efficiency in homes and schools through innovative lessons based on science and math related curriculum. School principals are the main point of contact and will schedule the performance at their convenience for the entire school. Once the principal confirms the performance date and time, two weeks prior to the performance, all materials are delivered to the principal’s attention for classroom and student distribution. Materials include school posters, teacher guides, classroom and family activity books and interactive activities such as online home audits that engage families in the learning experience.

Students are encouraged to complete a home energy survey with their family (included in their classroom and family activity book) to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption.

The current Program targets kindergarten through eighth grade students. The Company partners with a third party vendor, The National Theatre for Children, to administer the Program.

### Audience

Eligible participants include the Company’s residential customers who reside in households with school-age children enrolled in public and private schools.

### B & C. Impacts, Participants and Expenses

Energy Efficiency Education Program for Schools <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost	\$49.0	\$4.3	9%
Program Cost <sup>2</sup>	\$13.6	\$2.9	21%
MW <sup>3</sup>	23.9	1.7	7%
MWH	121,982	8,963	7%
Units		40,485	

**Notes on Table:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

### D. Qualitative Analysis

#### Highlights

The Company is helping bring arts and theatre back into the school while providing an important message about energy efficiency through a new innovative delivery channel for children. Enhancing the message

## Energy Efficiency Education Program for Schools

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with a live theatrical production truly captivates the children's attention and reinforces the curriculum material provided by teachers. In advance of the live performance, school administrators are sent printed materials including workbooks, teacher guides, and classroom and contest posters. The recruitment approach of contacting the principal has been extremely successful. Throughout the 2011-2012 academic year, 762 schools participated in the Program across North Carolina and South Carolina, exceeding the goal of 600. Projections for 2012-2013 are to reach over 700 schools.

The National Theatre for Children has a database with principal and teacher information that can be overlaid with the Company's service territory to determine the areas with the highest propensity of the Company's residential customers. The Program opened with 16 sets of actors during the 2011-2012 academic year throughout the Company's service territory. The logistics of these "troupes" and the scheduling tool of the National Theatre for Children minimize scheduling constraints resulting in less than five percent of schools canceling and not rescheduling their performance.

Through the performance, Nikki Neutron, the energy hero, encourages students to go online to complete their survey and receive their Energy Efficiency Starter Kit and help save the world. With this message to students, the response rate for online survey completions has been successful. Surveys can be completed online or by paper, with the majority being completed online. During the 2011-2012 academic year, two schools per state were awarded a \$1,000 cash prize for completing the most surveys. Winning schools were those with the highest raw number and highest percentage of home energy surveys submitted. The Company will continue to recognize schools for the 2012-2013 academic year to enlist survey signups for Energy Efficiency Starter Kits. A website was developed, [trackmysignups.org](http://trackmysignups.org), for principals, teachers and students to view their school's progress and compare sign ups to other schools in the area which helps foster community involvement.

AM Conservation, the kit vendor, pre-builds the Energy Efficiency Starter Kits which shortens the kit delivery time. When the Energy Efficiency Survey is completed and eligibility is determined, the kit is shipped and received within two to four weeks. The quicker turnaround time of the Energy Efficiency Starter Kit creates a higher level of engagement along with an increased likelihood that the customer will install items from the kit and return the Family Business Reply Card (BRC). The BRC provides the Company the opportunity to solicit and receive feedback from the customer and validate items in the kit being installed.

To ensure customer satisfaction with the Energy Efficiency Starter Kit and installation of items takes place, the Program team developed an email campaign to send emails to families. The email includes a reminder which is sent two weeks after successful kit delivery to encourage families to return their BRC. To further encourage BRC returns, one family per academic year wins a cash prize as part of a family contest drawing. During the 2011-2012 academic year, BRC response rates were 25 percent.

### Issues

The National Theatre for Children has overcome several challenges. With the level of success the Program has achieved, new challenges arise such as:

- Developing a strategic acquisition approach to minimize non-Company student participation in the Program.
- Determining a way to continue to engage children who have already participated in the Program but are disqualified from receiving the same Energy Efficiency Starter Kit year after year.

### Potential Changes

The National Theatre for Children is working closely with the Company to enhance the Program by:

- Partnering with the Company's Large Business Account Managers and Community Relations District Managers to leverage existing relationships as an additional acquisition channel.
- Developing an alternative kit for customers who have already participated in the Program.

## Energy Efficiency Education Program for Schools

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- Enhancing all data processing methods.

As the Program continues to evolve in 2013, additional enhancements will be made to improve the customer's experience when participating in the Program.

### **E. Marketing Strategy**

The National Theatre for Children is responsible for all marketing campaigns and outreach. The National Theatre for Children utilizes direct mail and email sent directly to principals for Program acquisition.

### **F. Evaluation, Measurement and Verification**

TecMarket Works conducted a process evaluation of the Program during 2012 with a final report presented on November 27, 2012. The impact report is scheduled to be completed in Q1 of 2013.

### **Significant Process Evaluation Findings**

#### **Key Findings from the Management Interviews**

- The Program is a solid, well-run program with an excellent network of implementers to support and exceed the Company's distribution goals for the Program. Although the Program has only been offered since 2011 in the Carolinas, the Program is exceeding its goals for Energy Efficiency Starter Kit distribution.

#### **Key Findings from the Performance Reviews**

- The performers are professional and courteous. They arrived at each school on time and always set up and readied their efforts well before the students arrived.
- "The Energized Guyz" performance was well-received by the students and got children excited about and focused on receiving their Energy Efficiency Starter Kit.
- Every staff person we spoke with indicated that The National Theatre for Children was "wonderful" to work with.
- The troupes successfully altered the complexity of the material presented to match the comprehension ability of the age of the children attending. This is important because if the information is too advanced to understand, the lessons are lost to the younger children, and if the lessons are too simple, the older students lose interest.

#### **Key Findings from the Participant Surveys**

Two hundred and two (202) participating student families that live in the Company's service territory in the Carolinas participated in an online survey which asked about what kit items they used and their satisfaction with the items. Surveys were completed by 102 households in North Carolina and 100 households in South Carolina.

The most commonly installed items, with installation rates of 75% or higher, were the kit's lighting items: 13-watt CFLs (87.6%), 18-watt CFLs (77.2%), and the night light (78.7%). These data indicate the kits are being well received and the kit items are being installed. The Department of Energy (DOE) booklet was the only other item used by over half of respondents (68.8%), although most of the remaining items had installation rates of over 40%. The kit items that respondents were least likely to use were the bathroom aerator (31.7%) and the water flow meter bag (21.3%). Ratings of satisfaction by those who installed the kit items generally range from 8.5 to 9.5 on a 10-point scale, except for the water flow meter bag (mean rating 7.95).

## Energy Efficiency Education Program for Schools

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	Percent Installed or Used	Mean Satisfaction Score
13-watt CFL	87.6%	8.53
night light	78.7%	9.44
18-watt CFL	77.2%	8.99
booklet	68.8%	9.22
kitchen aerator	48.0%	8.71
low flow showerhead	45.5%	8.38
water temp card	42.6%	9.30
switch and outlet gaskets	41.1%	8.93
bathroom aerator	31.7%	9.09
water flow meter bag	21.3%	7.95

### Recommendations

- Consider the development of a second kit so that troupes can visit a school more than once in a three-year period, as long as cost effective savings are achieved.
- Inform troupes that slowing their rate of speech<sup>1</sup> may improve students' comprehension of the material they are presenting. The typical adult speaks 160 words per minute. The central nervous system of pre-school through third grade children can process about 120 words per minute. Fourth grade students process 124-128 words per minute<sup>2</sup>.
- Consider revising the script so that saving energy is equated with their families lowering their utility bills and supporting environmental stewardship.
- Distribute the kit's "Decoder Ring" to each of the troupes. This ring was much more effective than the night light in getting the children excited about ordering the kit, and it can be easily incorporated into the script.

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<sup>1</sup> "Spot checks" were conducted on portions of the performances using a timer and the known count of words used by the actors from the script. While these checks were not scientific, overall speech rates were found to be slightly too fast for the ages of the audience.

<sup>2</sup> Banotai, Alyssa, "How to Talk to Children," ADVANCE Speech-Language Pathologists & Audiologists, Vol. 18, Issue 3, January 21, 2008.

<http://speech-language-pathology-audiology.advanceweb.com/Article/How-to-Talk-to-Children.aspx>

## Executive Summary

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### A. Description

During the 2013 first quarter Duke Energy Carolinas Collaborative meeting, Duke Energy Carolinas, LLC (the "Company") will provide an update on the performance of its energy efficiency and demand side management programs for 2012, Vintage 3. Product managers have prepared reports on each of our pilot/programs describing the offerings and details on pilot/program performance. This Executive Summary describes how the Company performed in regards to the demand side management performance in Vintage 3. Pilot/program details are in the individual reports.

#### Pilot/program reports include:

Program	Category	Customer
Non-Residential Smart \$aver Prescriptive	EE	Non-residential
Non-Residential Smart \$aver Custom	EE	Non-residential
Smart Energy Now Pilot	EE	Non-residential
PowerShare	DSM	Non-residential
Residential Energy Assessments	EE	Residential
Residential Smart \$aver Program	EE	Residential
Low Income Energy Efficiency and Weatherization Assistance Program	EE	Residential
Energy Efficiency Education Programs for Schools	EE	Residential
Residential Retrofit	EE	Residential
My Home Energy Report	EE	Residential
Appliance Recycling Program	EE	Residential
Residential Neighborhood Program	EE	Residential
Power Manager	DSM	Residential

### Audience

All retail Duke Energy Carolinas customers who have not opted out.

### B & C. Impacts, Participants and Expenses

The tables below include results for Vintage 3. The Company has included nominal avoided cost rather than present value of the avoided cost because our targets for save-a-watt purposes are based on nominal dollars. Please note that because North Carolina and South Carolina have slightly different avoided costs rates, the targets for each are different.

The Company has not included the number of participants from the filing as well as the percentage of target for participants in these reports because participants for individual measures may vary by unit of measure, for example, one CFL bulb in one measure or one six pack in another. Due to the multiple measures in programs, this can skew participation targets. To minimize confusion, this information was excluded from the report. Actual participants are included.

In 2012, the Company's achievements are above the avoided cost target for Vintage 3. This is primarily due to high impacts in the energy efficiency programs – Residential Smart \$aver and Non-Residential Smart \$aver. Although the avoided cost is higher than target, the program cost is lower than filed at a system level.

## Executive Summary

North Carolina System Summary <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
Nominal Avoided Cost	\$210.8	\$256.5	122%
Program Cost <sup>2</sup>	\$79.0	\$78.6	100%
MW from Vintage 3 <sup>3</sup>	655	711	108%
Incremental EE MW from Vintage 2 <sup>3</sup>	38	64	158%
Incremental EE MW from Vintage 1 <sup>3</sup>	43	59	149%
Total MW Achieved <sup>4</sup>	736	835	113%
MWH	381,914	498,734	131%
Units		7,219,230	

**Notes on Tables:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.
- 4) Per the original SAW filings, Vintage 3 MW targets include MW achieved from Vintage 1 and Vintage 2 conservation programs.

South Carolina System Summary <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
Nominal Avoided Cost	\$241.9	\$254.4	105%
Program Cost <sup>2</sup>	\$91.1	\$78.6	86%
MW from Vintage 3 <sup>3</sup>	815	711	87%
Incremental EE MW from Vintage 2 <sup>3</sup>	43	64	150%
Incremental EE MW from Vintage 1 <sup>3</sup>	37	59	159%
Total MW Achieved <sup>4</sup>	895	835	93%
MWH	385,959	498,734	129%
Units		7,219,230	

**Notes on Tables:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.
- 4) Per the original SAW filings, Vintage 3 MW targets include MW achieved from Vintage 1 and Vintage 2 conservation programs. Vintage 1 in South Carolina covered February 2010 to December 2010.

Energy efficiency impacts have primarily been driven by lighting measures in both the residential and non-residential space. As a percentage of the target, the non-residential and residential portfolios have exceeded expectations to date. This is a result of a higher take rate for CFLs offerings than originally projected.

The DSM portfolio is divided between the PowerShare (non-residential) and Power Manager (residential) programs. The Company is above target in North Carolina and slightly below target in South Carolina for avoided cost kW. Program costs are aligned in comparison to achieved avoided cost for both North Carolina and South Carolina.



## Executive Summary

<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
North Carolina Nominal Avoided Cost	\$166.9	\$208.0	125%
South Carolina Nominal Avoided Cost	\$180.4	\$200.0	111%
Program Cost <sup>2</sup>	\$56.3	\$49.9	89%
MW <sup>3</sup>	72.2	70.4	98%
MWH	385,959.4	498,733.6	129%
Units		7,032,969	

**Notes on Table:**

- Numbers rounded. As filed impacts and program costs are from the South Carolina MSAW settlement. North Carolina as filed for program costs, MW and MWH are 56.8M, 70.4 MW and 381,914.2 MWH.
- As filed program costs do not include M&V. Actual costs may include M&V. Actual program costs include amounts for Neighborhood Low Income and Appliance Recycle.
- As filed MW are annual maximum peak. We track coincident peak for impacts.

Note: The EE portfolio kWh targets and DSM portfolio kW targets for North Carolina and South Carolina are different. While the North Carolina EE docket was never closed, the original South Carolina EE docket was closed, included in the South Carolina rate case, and was adjusted up after the North Carolina filing. Both states have limitations on how much DSM can count towards the four-year avoided cost, with South Carolina having a higher percentage due to the higher kW target.

<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
Nominal Avoided Cost	\$43.9	\$48.5	110%
Program Cost <sup>2</sup>	\$22.2	\$28.7	130%
MW <sup>3</sup>	585.1	640.7	110%
MWH	N/A	N/A	
Units		186,261	

**Notes on Tables:**

- Numbers rounded.
- As filed program costs do not include M&V. Actual costs may include M&V.
- MW capability derived by taking average over PowerShare and PowerManager contract period.

<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
Nominal Avoided Cost	\$61.5	\$54.3	88%
Program Cost <sup>2</sup>	\$34.8	\$28.7	83%
MW <sup>3</sup>	743.2	640.7	86%
MWH	N/A	N/A	
Units		186,261	

**Notes on Tables:**

- Numbers rounded.
- As filed program costs do not include M&V. Actual costs may include M&V.
- MW capability derived by taking average over PowerShare and PowerManager contract period.

### D. Qualitative Analysis Highlights

#### Energy Efficiency

## Executive Summary

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To date, customer participation has been driven primarily by lighting and assessments programs. These measures provide customers with a relatively low cost efficiency upgrade, with minimal hassle, creating a positive initial energy efficiency experience. The Residential Smart \$aver program continues to achieve greater than expected participation. This increase has been primarily driven by the overwhelming participation in the residential CFL offering. The increased participation is attributed to expanding the channels for customers to request CFLs. The new channels allow customers to request CFLs via the IVR/Web channel. These channels are lower in cost, provide an improved customer experience, and allow the Company to recognize participation in a timelier manner.

The Non-Residential Smart \$aver Custom program has achieved greater than expected participation. The established trade ally network has enabled the Company to minimize acquisition costs by using trade allies as an extended sales force. Providing the trade ally network information on our incentive structure has enabled them to market the incentives to customers.

### Demand Side Management (DSM)

The capacity for both the PowerShare and Power Manager is above target for North Carolina but slightly below target for South Carolina.

### **Issues**

There have been a number of issues that have negatively impacted Company specific energy efficiency programs. These programs include Low Income Energy Efficiency and Weatherization Assistance Program, Residential Energy Assessments and Energy Efficiency Education Programs for Schools. Potential program changes to improve program performance are addressed in the individual reports.

### **Potential Changes**

The Company is reviewing the current processes for several programs and considering potential changes to increase customer adoption. Potential changes are discussed in individual program reports.

### **E. Marketing Strategy**

Located in individual reports.

### **F. Evaluation, Measurement and Verification**

Located in individual program reports.

## Low Income Energy Efficiency and Weatherization Assistance Program

### A. Description

The purpose of the Low Income Energy Efficiency and Weatherization Assistance Program (“Program”) is to assist low income customers with energy efficiency measures in their home to reduce energy usage. There are two offerings currently in the Program: weatherization and equipment replacement.

Weatherization and Equipment Replacement Assistance is available for up to 5,000 qualified customers on the Duke Energy Carolinas, LLC’s (the “Company”) system in existing, individually metered, owner-occupied single-family, all-electric residences, condominiums, and mobile homes.

- Funds are available for (i.) weatherization measures, and/or (ii.) refrigerator replacement with an Energy Star appliance, and/or (iii.) heating system replacement with a 14 or greater SEER heat pump. The measures eligible for funding will be determined by an energy audit of the residence.
- A home energy audit will be provided at no charge to the customer.
- Participants are not eligible for payments under any other of the Company’s energy efficiency programs for the same energy efficiency measure provided under this Program.

The weatherization and equipment replacement programs were not implemented in 2012. The Company planned to work with the state weatherization program administrators from North Carolina and South Carolina to provide a utility offered weatherization program to eligible customers. However, due to the distribution of American Recovery and Reinvestment Act (ARRA) funds in 2009, both North Carolina and South Carolina state weatherization program administrators requested the Company delay the utility-offered weatherization and equipment programs. The Company is currently working with contacts from the state administrator’s office for North Carolina and South Carolina to implement a utility-offered program.

### Audience

Availability of this Program will be coordinated through local agencies that administer state weatherization programs, and the agency must certify that the household income of the participant is between 150% and 200% of the federal poverty level.

### B & C. Impacts, Participants and Expenses

Low Income Energy Efficiency and Weatherization Assistance <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost	\$17.9	\$0.0	0%
Program Cost <sup>2</sup>	\$9.2	\$0.0	0%
MW <sup>3</sup>	7.3	0.0	0%
MWH	53,924.6	0.0	0%
Units		0	

**Notes on Table:**  
1) Numbers rounded.  
2) As filed program costs do not include M&V. Actual costs may include M&V.  
3) As filed MW are annual maximum peak. We track coincident peak for impacts.

## Low Income Energy Efficiency and Weatherization Assistance Program

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### **D. Qualitative Analysis**

#### **Highlights**

The residential Smart \$aver<sup>®</sup> program offers CFLs to eligible residential customers in North Carolina and South Carolina through the automated Interactive Voice Response/Web platform. The number of income qualified program participants requesting free CFLs from the residential Smart \$aver<sup>®</sup> CFL program far exceeds the participation rate achieved in the Agency Assistance Kit program.

The Company continues to partner with local agencies by providing CFL postcards that include information on the free CFL offer and instructions on how to place orders. An example of this postcard is included in the Appendix.

#### **Issues**

Both the state of North Carolina and South Carolina received extensions to continue funding their weatherization programs with ARRA funding. The Company continues to have active discussions with the state weatherization program administrators for both North Carolina and South Carolina to define a plan for a utility offered weatherization program that supports their weatherization programs in the post-ARRA environment.

#### **Potential Changes**

The Company is evaluating potential Program changes to the approved weatherization and refrigerator replacement programs in an effort to align with the state weatherization program in post-ARRA environment.

### **E. Marketing Strategy**

Low income agencies receive a supply of postcards to distribute to clients who are customers of the Company. The postcards provide instructions for customers to request CFLs by phone or web and have CFLs delivered directly to their home.

### **F. Evaluation, Measurement and Verification**

There are no evaluations scheduled at this time.

## Low Income Energy Efficiency and Weatherization Assistance Program

### G. Appendix

#### CFL Agency Card (Front)



**Duke Energy**

### Duke Energy Customers Can Receive **FREE Energy Efficient Bulbs**

**We'll Ship Them Direct To Your Home – No Obligation!**

At Duke Energy, we want everyone to learn how new, energy-saving bulbs can save a lot in the long run. So, we'll send FREE bulbs to try for yourself with absolutely no obligation or risk.

**These new bulbs:**

- Last up to 10 times longer than a standard bulb. That means you'll replace bulbs far less often.
- Provide the same amount of light as a standard bulb but use about 75 percent less energy.
- Can help you save on your electric bill – about \$30 over the lifetime of each bulb.

**TO SEE IF YOU'RE ELIGIBLE FOR FREE BULBS, CALL 1-800-943-7585 and press Option 1. Or visit [www.duke-energy.com/freecfls](http://www.duke-energy.com/freecfls). WE LOOK FORWARD TO SENDING YOU YOUR FREE BULBS!**

#### CFL Agency Card (Back)



**Duke Energy**

### Energy-Saving Bulbs Are A Bright Idea

Today's energy-saving bulbs have come a long way from earlier models and provide high-quality, warm white light and no buzzing.

**Don't wait for existing bulbs to burn out. Get your free bulbs and start saving now.**

**Here's how:**

- 1** To get your free bulbs, call 1-800-943-7585 and press **Option 1** or visit [www.duke-energy.com/freecfls](http://www.duke-energy.com/freecfls).
- 2** Install your energy-saving bulbs in the most frequently used areas of your home.
- 3** Enjoy the savings on your electric bill!

**See if you are eligible now. Order your bulbs in less than five minutes!**

## My Home Energy Report

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### A. Description

The My Home Energy Report (“MyHER” or the “Program”), formerly known as the Home Energy Comparison Report (HECR), is a periodic comparative usage report that compares a customer’s energy use to similar residences in the same geographical area. The report provides customer specific energy saving recommendations for more efficient use of energy in the customer’s home.

The reports are distributed in printed form up to 12 times per year (delivery may be interrupted during the off-peak energy usage months in the fall and spring). The report delivers energy savings by encouraging customers to alter their energy use. The monthly energy usage of each home is compared to the average energy usage of neighbors in similar home types for the same period as well as the most efficient neighbors in similar home types for the same period. Suggested energy efficiency improvements, given the usage profile for that home, are also provided. In addition, measure-specific offers, rebates or audit follow-ups from other Company offered programs are offered to customers, based on the customer’s energy profile.

Duke Energy Carolinas, LLC (the “Company”) piloted the Program under the name Home Energy Comparison Report in South Carolina. The Public Service Commission of South Carolina approved the commercial program on May 2, 2012. The North Carolina Utilities Commission approved the commercial filing on September 11, 2012.

### Audience

The audience is the Company’s customers, identified through demographic information, who are likely to decrease energy usage in response to the information contained in the MyHER report. These customers resided in individually-metered, single-family residences receiving concurrent service from the Company.

### B & C. Impacts, Participants and Expenses

My Home Energy Report <sup>12</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
South Carolina Nominal Avoided Cost		\$3.1	
Program Cost		\$3.0	
MW <sup>3</sup>		10.5	
MWH <sup>3</sup>		49,339.5	
Units		702,215	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as filed comparison for My Home Energy Report because it was not included in the original filing.  
 3) Impacts incremental to 2011 achievement.

### D. Qualitative Analysis

Program participants are encouraged to contact the Company with their questions, comments and report corrections. Customers contacting MyHER customer support represent eight percent of all customers receiving the reports. Report corrections continue to generate the largest number of inquiries. Customers wishing to be removed from the Program represent less than one percent of program participants.

### Highlights

The Company has received calls, letters and emails from customers thanking the Company for offering the Program. Customers have given examples of how they have used the information provided in MyHER to reduce their energy usage. Customers not receiving MyHER find out about the Program from

## My Home Energy Report

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their neighbors and have called and asked to be added to the Program.

### **Issues**

A high percentage of calls to customer support are unrelated to MyHER. The calls are related to billing concerns or to outage reporting. The Company believes that many customers save their reports for reference, and the phone number included for customer support is easy to locate and call. The Company installed an integrated voice report system (IVR) for the MyHER customer support line. With the implementation of the IVR, the number of calls routed to the MyHER customer support team has declined by approximately 40%.

### **Potential Changes**

The Company modified the report of customers who are more efficient than the average home to show their comparison with an "Efficient Home." The Company is researching opportunities to expand the report to additional residential customers.

### **E. Marketing Strategy**

Marketing for the Program consists of proactive reports currently distributed through direct mail and supported with a program website featuring additional information on the reports, Frequently Asked Questions (FAQs) and contact resources.

### **F. Evaluation, Measurement and Verification**

The proposed Evaluation, Measurement & Verification ("EM&V") plan includes a process for isolating energy savings attributable solely to the Program and an analysis of persistence on an annual basis. Based on receiving an order from the North Carolina Utilities Commission, the EM&V plan has been revised to include an analysis of the impact of tariffs on potential program savings, provided that there is a sufficient pool of participants. A process and impact evaluation is currently being conducted for the 2012 program year.

## Non-Residential Smart \$aver® Custom Incentives

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### A. Description

Duke Energy Carolinas, LLC's (the "Company") Non-Residential Smart \$aver® Custom Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers (that have not opted out) to enhance their ability to adopt and install cost-effective electrical energy efficiency projects.

The Program is designed to meet the needs of the Company's customers with electrical energy saving projects involving more complicated or alternative technologies, or those measures not covered by the Non-Residential Smart \$aver Prescriptive Program. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

The Program's application is for projects that are not addressed by the applications for the Non-Residential Smart \$aver Prescriptive Program. Unlike the Non-Residential Smart \$aver Prescriptive Program, the Program requires pre-approval prior to the project implementation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

Currently, the following application forms are located on the Company's website under the Smart \$aver Incentives (Business and Large Business tabs):

- Optional planning form that allows customers and their vendors to submit preliminary project information and receive feedback on potential eligibility and tips on filling out the application form.
- Custom Application offered in Word and pdf format with the designated worksheet in Excel format. Customers can request the worksheet in another format if preferred. Customers or their vendors submit the forms with supporting documentation. Forms are designed for multiple projects and multiple locations. Custom Incentive Application (doc or pdf), are submitted with one or more of the following worksheets:
  - Lighting worksheet (Excel)
  - Variable Speed Drive (VFD) worksheet (Excel)
  - Compressed Air worksheet (Excel)
  - Energy Management System (EMS) worksheet (Excel)
  - General worksheet (Excel) to be used for projects not addressed by or not easily submitted using one of the other worksheets

The Company contracts with Ecova to perform the administrative review of applications, fulfill payment requests, provide training and technical support to our Trade Ally network and provide call center services to customers who call the Program's toll free number which is specific to the Smart \$aver Program. The engineering firm AESC performs the technical review of custom applications. All other analysis is performed internally at the Company.

### Audience

The Company's non-residential electric customers, except those that choose to opt out of the Program, are eligible.



## Non-Residential Smart Saver® Custom Incentives

### B & C. Impacts, Participants and Expenses

Smart Saver for Non-Residential Customers - Custom Rebate <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
South Carolina Nominal Avoided Cost	\$20.7	\$69.1	335%
Program Cost <sup>2</sup>	\$9.9	\$12.0	121%
MW <sup>3</sup>	4.2	15.4	363%
MWH	26,631	113,381	426%
Units		67,339	

**Notes on Table:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include \$0.5M of Non Residential Energy Assessments.  
 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

### D. Qualitative Analysis

#### Highlights

Customer interest and participation exceeded expectations in 2012. An average of 44 new applications per month was received in 2012, compared to 25 per month in 2011 and nine per month in 2010. Total amount of custom incentives paid during 2012 was equal to 240 percent of the amount paid in the year 2011. Customers are consistently investing in efficiency projects that are not addressed by the prescriptive incentives. Customers would be able to plan better and Program administrative costs could decrease if some of the measures offered as part of the Program were added to the list of prescriptive incentives.

Efforts to educate the vendors who sell energy efficient equipment (trade allies) have been very successful. In many cases, the vendor will submit the paperwork for the customer which eliminates a barrier for customers that do not have the resources to devote to completing the application.

#### Issues

The Program application process is considered burdensome by some customers due to the technical review required for all projects applying for a custom incentive. The technical review often requires customers (or their vendor) to quantify the projected energy savings from the proposed project. This can be a lengthy process that may require some level of engineering expertise. This requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. Those technologies that seem to be a good fit for the Non-Residential Smart Saver Prescriptive Program will be recommended for addition to the prescriptive application. The more measures offered through the Non-Residential Smart Saver Prescriptive Program, the fewer burdens there are on the customer that prevents participation in the Smart Saver program.

While the level of interest in custom incentives has increased, the custom incentive team has worked diligently to reduce average application review times. Customers receive an estimate of the total review time with the application receipt acknowledgment. Expedite requests are accommodated whenever feasible without adversely affecting other application reviews.

#### Potential Changes

An online application form is in development, with the goal to continue to improve customers' experience with custom incentives.

### D. Marketing Strategy

## Non-Residential Smart \$aver® Custom Incentives

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The marketing strategy for the Program is the same as the Non-Residential Smart \$aver Prescriptive Program. The strategy is to promote prescriptive incentives, which show pre-approved incentive amounts that get customers interested in a project and are designed for a high volume of applications. Then, if a customer's project does not fall under prescriptive incentives, the custom application is there to offer an alternative.

### **E. Evaluation Measurement and Verification**

The process evaluation results were presented to the Collaborative in the meeting held in June 2012. The impact evaluation is scheduled for completion near the end of the first quarter of 2013. The impact evaluation will include a tracking system review, sample design and selection, an engineering review of the custom program applications, field measurement and verification of selected projects, data analysis and reporting. This impact evaluation will include case studies of a sample of custom applications covering lighting, process and HVAC technologies.

## Non-Residential Smart \$aver Prescriptive Incentives

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### A. Description

The Non-Residential Smart \$aver<sup>®</sup> Prescriptive Program ("Program") provides incentives to Duke Energy Carolinas, LLC's (the "Company") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment. Incentives are provided based on the Company's cost effectiveness modeling to assure cost effectiveness over the life of the measure.

Commercial and industrial customers can have significant energy consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to help reduce the cost differential between standard and high efficiency equipment, offer a quicker return on investment, save money on customers' utility bills that can be reinvested in their business, and foster a cleaner environment. In addition, the Program provides market demand where the dealers and distributors (or market providers) will stock and provide these high efficiency alternatives as they see increased demand for the products. Higher demand can result in lower prices.

The Program promotes prescriptive incentives for the following technologies – lighting, HVAC, motors, pumps, variable frequency drives, food services and process equipment. Equipment and incentives are predefined based on current market assumptions and engineering analysis. The eligible measures, incentives and requirements for both equipment and customer eligibility are listed in the applications posted on the Company's Business and Large Business websites for each technology type.

Prior to 2013, the Company contracted with Wisconsin Energy Conservation Corporation ("WECC") to administer the fulfillment responsibilities of the Program and to provide training and technical support to the Company's trade ally network. Beginning January 2013, Ecova replaced WECC and retains responsibility for fulfillment activities and Trade Ally outreach and support as well as call center services. Prior to Ecova assuming responsibility, CustomerLink provided call center services to customers who called the Program's toll free number which is specific to the Smart \$aver<sup>®</sup> Prescriptive Program.

### Audience

All of the Company's non-residential electric customers, except those that choose to opt out of the Program, are eligible.

### B & C. Impacts, Participants and Expenses

Smart Saver for Non-Residential Customers - Prescriptive <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 December 31, 2012	% of Target
<b>South Carolina Nominal Avoided Cost</b>	<b>\$51.9</b>	<b>\$54.9</b>	<b>106%</b>
<b>Program Cost<sup>2</sup></b>	<b>\$10.2</b>	<b>\$7.8</b>	<b>77%</b>
<b>MW<sup>3</sup></b>	<b>20.0</b>	<b>15.9</b>	<b>80%</b>
<b>MWH</b>	<b>70,356</b>	<b>85,846</b>	<b>122%</b>
<b>Units</b>		<b>338,150</b>	

**Notes on Table:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include approximately \$0.3M of Non-Residential Energy Assessments.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

Consistent with other state programs, High Bays, occupancy sensors, compact fluorescent lighting, LED Case Lighting and T12 conversions provided a significant portion of impacts and participation during 2012. Lighting installations have a shorter payback period than most other technologies, making lighting financially more attractive for customers to pursue. Subsequent to lighting, variable frequency drives and HVAC equipment continue to drive impacts.

Favorable avoided cost and impact variances to filings are attributed to success:

## Non-Residential Smart \$aver Prescriptive Incentives

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- Trade ally outreach efforts – providing training and support to our trade allies who are often the first point of contact for unassigned business customers evaluating energy efficiency projects.
- The Company's internal customer focused outreach teams and targeted customer campaigns – providing outreach, education and support to customers.

To date, the leveraging of support costs and the trade ally network across regions has helped to minimize marketing and administrative costs and attributed to the favorable year-to-date variance. However, the potential exists that acquisition costs may increase as the Program continues to mature.

### D. Qualitative Analysis

#### Highlights

Trade ally buy-in has proven to be the most effective way to promote the Program to the Company's business customers. At Program rollout, the Company and WECC took an aggressive approach to contacting trade allies associated with the technologies in and around the Company's service territory. Existing relationships continued to be cultivated during 2012 while recruitment of new trade allies also remained a focus. To date, approximately 450 trade allies across both North Carolina and South Carolina representing the different technologies are signed up as participating trade allies. Their company's name and contact information appear on the trade ally search tool located on the Program's website. This tool was designed to help customers who are not aware of a local trade ally locate a trade ally in their area who can serve their needs and has been revised to incorporate enhanced search criteria functionality. The Company continues to look for ways to engage the trade allies in promotion of the Program as well as more effective targeting of trade allies based on market opportunities.

During a focus group of lighting and mechanical trade allies that was conducted in December 2011, a suggestion was provided to develop an on-line application submission and status verification system. An on-line application and status verification platform is under development with Ecova and is anticipated to launch in the first quarter of 2013.

The Company recently completed an automated marketing campaign focused on lighting through the use of emailed newsletters and post cards. The marketing campaign was designed to generate leads based on activity taken by the email recipients to the content received. Personalized follow-up is underway based on the leads generated. A second automated campaign is scheduled for 2013 that will focus on HVAC.

An Energy Efficiency Store is also under development, with a second quarter 2013 launch planned, that will provide customers the opportunity to take advantage of a limited number of incentive measures by purchasing qualified products from an on-line store and receiving an instant incentive that reduces the purchase price of the product. The incentives offered in the store will be consistent with current Program incentive levels.

#### Issues

Participation in lighting continues to be better than expected. However, there are other measures that provide savings to customers that continue to have little or no participation. Examples of these are food services and process equipment. HVAC participation is challenged given dependencies on failed equipment and facility expansions (existing and new construction) that result from measure design. The Company continues to work with outside consultants and internal resources to develop strategies to understand equipment supply/value chains and increase awareness of these measures going forward. Additionally, evaluations of alternative HVAC incentive designs geared to drive early equipment replacements continue.

Another persistent challenge is the continued slow economic recovery which has led to a reduction in customer payback thresholds and thus reduced elective participation in certain measures.

## Non-Residential Smart \$aver Prescriptive Incentives

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### Potential Changes

Standards continue to change and new, more efficient technologies continue to emerge in the market. The Company will continue evaluating the opportunity to add measures to the approved Program that provide incentives for a broader suite of energy efficient products.

### E. Marketing Strategy

Non-residential customers are informed of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies, who in turn sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through assigned Company account managers. Accounts that do not have an assigned account manager receive information about the Program through direct mail, email and other direct marketing efforts including outbound call campaigns.

The internal marketing channel is comprised of assigned Large Business Account Managers, Segment Managers and Local Government and Community Relations who all identify potential opportunities as well as distribute program collateral and informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

### Marketing Materials

North Carolina Website

<http://www.duke-energy.com/north-carolina-business/smart-saver-incentive-program.asp>

South Carolina Website

<http://www.duke-energy.com/south-carolina-business/smart-saver-incentive-program.asp>

### F. Evaluation, Measurement and Verification

TecMarket Works, the independent third-party evaluator, provided a memo to the Company presenting impact results of VFD measures on February 2, 2012. The information in the memo was presented to the Company's Collaborative in June 2012.

The savings were summed over each of the VFD measures in the program tracking database. Because the DSMore measure library is not static and grows over time, results are depicted in two ways depending on whether results were intended to be applied to replace initial estimates or prospectively. To replace the initial estimates, an average savings value per VFD was calculated for each of the VFD size and type categories used in the DSMore runs. The program savings claim did not distinguish between pumps and fans so the HVAC related savings were averaged across the pump and fan savings at each VFD size. The results of this analysis are shown in Table 2.

## Non-Residential Smart \$aver Prescriptive Incentives

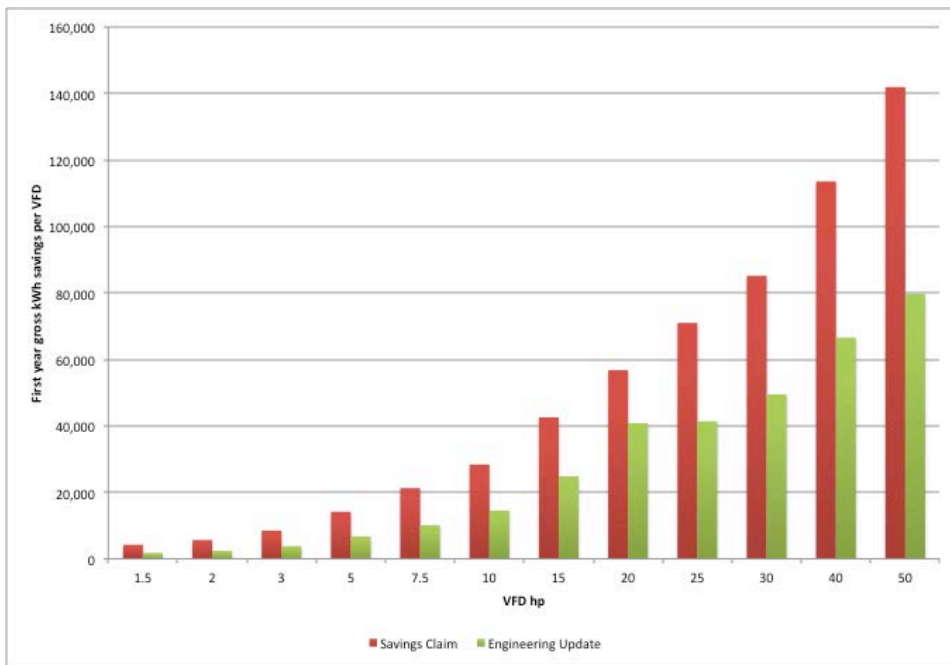
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**Table 1. VFD kWh and kW Savings by Size and Type**

HP \ Type	HVAC		Process	
	kWh/VFD	kW/VFD	kWh/VFD	kW/VFD
<b>1.5</b>	1,787	0.26	1,436	0.39
<b>2</b>	2,401	0.36	1,914	0.52
<b>3</b>	3,834	0.51	2,871	0.78
<b>4</b>	6,181	0.45	3,828	1.04
<b>5</b>	6,747	0.81	4,785	1.30
<b>7.5</b>	10,129	1.14	7,178	1.95
<b>10</b>	14,541	1.80	9,570	2.60
<b>15</b>	24,856	2.82	14,355	3.90
<b>20</b>	40,819	4.63	19,140	5.20
<b>25</b>	41,370	4.31	23,925	6.50
<b>30</b>	49,497	5.26	28,710	7.80
<b>40</b>	66,577	5.05	38,280	10.40
<b>50</b>	79,738	8.70	47,850	13.00

The program savings claim assumed all HVAC applications were VFD pumps; however, most of the applications were HVAC fans, which carry a lower savings value. Consequently, the savings per VFD were reduced by this analysis. A comparison of the savings per VFD from the original program filing and this analysis is shown in Figure 3.

## Non-Residential Smart \$aver Prescriptive Incentives



**Figure 1. Comparison of Filed Savings with Updated Engineering Estimates**

## Power Manager®

### A. Description

Power Manager® (“Program”) is a demand response program that cycles residential central air conditioning usage during summer peak demand conditions. Duke Energy Carolinas, LLC (the “Company”) installs a load cycling device to the outdoor unit of a qualifying air conditioner. This enables the customer’s air conditioner to be cycled off and on when the load on the Company’s system reaches peak levels in the summer. In addition, the Company can perform a full shed interruption of participating customers’ air conditioning systems at any time due to capacity problems, including generation, transmission or distribution capacity problems or reactive power problems.

Program participants receive a financial incentive for participating in this program – an \$8 per month bill credit from July through October (\$32 annually).

The cycling of the customer’s air-conditioning system has shown that there is no adverse impact on the operation of the air-conditioning system. The load control device has built-in safe guards to prevent the “short cycling” of the air-conditioning system. The air-conditioning system will run the minimum amount of time required by the manufacturer. The cycling simply causes the air-conditioning system to run less, which is no different from what it does on milder days. Additionally, the indoor fan will continue to run and circulate air during the cycling event.

### Audience

This program is available to the Company’s residential customers residing in owner-occupied, single-family residences with a qualifying outdoor central air-conditioning unit.

### B & C. Impacts, Participants and Expenses

South Carolina PowerManager <sup>1</sup>				
	<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost		\$24.6	\$22.6	92%
Program Cost <sup>2</sup>		\$14.5	\$12.6	87%
MW <sup>3</sup>		305.6	266.5	87%
MWH		N/A	N/A	
Units			186,090	

**Notes on Tables:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) MW capability derived by taking average over PowerManager contract period.

### D. Qualitative Analysis

#### Power Manager® Events – 2012

There were five Power Manager® cycling events in the summer of 2012. The Company cycled customers’ air-conditioning units to shift demand and lower the afternoon peak on:

- June 29
- July 9, 17, 26 and 27

In addition to these cycling events, the Company conducted two successful tests on June 13 and 14 to



## Power Manager®

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assess the readiness of the Power Manager® systems. The first test ensured the Company's ability to initiate a full shed of air conditioning load. The following day's test verified that, if needed, the Company could shift to full shed while a cycling event is underway.

### Power Manager®- \$35 Installation Fee

The Public Service Commission of South Carolina and North Carolina Utilities Commission approved the Company's request to eliminate the \$35 installation fee for Program participants.

### Power Manager®- Recognized

Power Manager® was recognized with the Outstanding Achievement in Energy Efficiency Technology Deployment by the Association of Energy Services Professionals at their annual conference held in February 2012. Power Manager's ability to cycle air conditioners to achieve a targeted kilowatt (kW) load reduction was the basis of the award. Following is an excerpt from the award nomination (as submitted by Nick Hall of TecMarket Works). *"Residential load control switches installed on air conditioners have typically not been capable of delivering load reductions from a large segment of participating customers who have air conditioners that perform within limited duty cycles. Customers with small homes or with over-sized AC units could easily recover from the programmed switch control cycle. This resulted in air conditioners that shifted their normal duty cycle to be synchronized with the switch control cycle but provided no reduction in actual load. The new switch requested by Duke was built by Cooper Power Systems to meet the higher performance needs of Duke's load control programs. The switch is self-calibrating to the condition of each home, and then self-formulates a control strategy for that individual home so that the level of contracted load is acquired regardless of the size of the unit or the conditions of the home. This represents a major breakthrough in load control switches to help assure that the load reduction is achieved from every customer rather than a sub-population of customers."*

### **E. Marketing Strategy**

With the approval of the elimination of the \$35 installation fee, an email marketing approach was used for the first time. Power Manager® was the feature topic in the June residential email "Cool ideas for summer heat." In addition, this email included the debut of the new Power Manager® video. This offer was sent to over 150,000 Duke Energy Carolinas residential customers and resulted in a 38% response. This email represented a low acquisition cost approach and resulted in over 550 enrollments.

The Company plans to continue to use email and limited direct mail offers for its near-term Power Manager® marketing, while focusing its technical resources on replacing older Power Manager® devices. In 2012, over 45,000 of these older devices were removed from the program, with the majority of these being replaced with new equipment.

In 2012, the Company mailed postcards to a sample of South Carolina customers in advance of the replacement visit by our contractor GoodCents. Learnings showed that providing advance notice of the work and legitimacy of GoodCents improved the customer's experience. Plus, it improves retention of customers on the Program. This approach has proven to be very successful and will be moved from the pilot stage to full implementation in both North Carolina and South Carolina in 2013.

Program information, such as the online enrollment form and the new video, is available to customers on the Program's website located at <http://www.duke-energy.com/north-carolina/savings/power-manager.asp>.

### **F. Evaluation, Measurement and Verification**

The impact evaluation for the 2011 Power Manager® program was finalized on September 7, 2012. This information was shared with the Company's Collaborative in December 2012.

## Power Manager<sup>®</sup>

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The impact evaluation developed an air conditioning duty cycle model for each air-conditioning unit based on information from a sample of Power Manager<sup>®</sup> participants in the Company's system. This duty cycle was then used to simulate the expected natural duty cycle for load control technologies under two different conditions: 1) during the Power Manager<sup>®</sup> event days, and 2) under peak normal weather conditions. The results of these simulations were used to produce estimates of the potential load reduction. These estimates were then de-rated by the results of various operability studies to give estimates of the realized load reductions. Table 1 below summarizes the resulting estimated actual and the peak normal weather load impacts at the switch level for the Company's customers.

**Table 1. Carolinas System Load Impacts per Switch Adjusted for Line Losses**

<b>Control Strategy</b>	<b>2011 Impacts</b>	<b>Peak Normal Weather Impacts</b>
Target Cycle (TC) 1.3 and Fixed Cycle	0.64	0.69
Full Cycle	0.95	1.19

The approach used by the Company's staff is nearly identical to the approach used in the prior evaluations reviewed by the TecMarket team.

Noteworthy additions include:

- The discovery that many Cannon switches deviate substantially from the shed times expected for the Target Cycle method, shedding more like an "inverted" pattern. This results in a significant difference between the expected Target Cycle shed and the actual shed. The reported estimated impacts incorporate this inverted shed.
- It appears that the peak normal impacts now include an adjustment for line losses. This is a commendable approach and is rarely done in other evaluations.

A full process evaluation was not conducted for this Program in 2012. However, the findings of customer surveys completed after specific event days will be presented during the June 2013 Company's Collaborative meeting. These surveys covered customer experiences with the Program as it relates to event days in 2012.

The impacts evaluation from the economic events in the summer of 2012 is scheduled to be completed in Q2 of 2013.

## Power Manager®

### G. Appendix

#### 2012 Seasonal Reminder Postcard

**Power Manager®**

Thank you for taking part in Power Manager – a voluntary program that pays you for allowing Duke Energy to cycle off your air conditioner as electricity demand approaches peak levels.

As a Power Manager participant, you receive an \$8 credit on your electricity bill each month from July through October – that's \$32 a year! Plus, your commitment helps preserve the environment and keep electric rates lower throughout our service area in the Carolinas.

Last summer, our Power Manager customers in the Carolinas combined to reduce electricity demand by an average of 110 megawatts during each cycling event. That's the equivalent of the energy needs of nearly 37,000 homes during those peak periods.

**Questions:** Visit [Duke-Energy.com/Power-Manager](http://Duke-Energy.com/Power-Manager) or call 800-777-9898 for more information.

**Event Hotline:** Call 800-832-3169 to see if a cycling event is underway.

120396 SE | 5/12

#### June 2012 email

If you are still having problems viewing this message, please [click here](#) for additional help.



**CHILL OUT THIS SUMMER**

We're burning up with ideas on how to stay cool – and save energy and money – this summer. Getting started is easy. Just check out the info below. It can help you save BIG!

**Do your part – and get paid for it!**

Did you know that you can earn money on your power bill each summer? It's all part of **Power Manager**, a voluntary program that reduces your air-conditioning system's run times when demand for electricity is at its highest! Some eligibility requirements apply.

[See How It Works](#)

**Watch out for that man (on the street)!**

What do people think about saving energy? What's the ideal thermostat setting? We asked, you answered. See what regular folks have to say about their energy use.

[Watch The Video](#)

**"Like" Youility on Facebook**

Do you like saving money? Then you should "Like" Youility on Facebook. We share energy and money-saving tips, family project ideas and more. Plus, you can connect with other energy enthusiasts just like you!

[Join The Conversation](#)

# PowerShare®

## A. Description

PowerShare® (“Program”) is a demand response program offered to commercial and industrial customers. The Program is made up of Mandatory (“PS-M”), Generator (“PS-G”), Voluntary (“PS-V”) and CallOption options, and customers can choose from a variety of offers. Under PS-M, PS-G and CallOption, customers receive capacity credits for their willingness to shed load during times of peak system usage. These credits are received whether an event is called or not. Energy credits are also available for participation (shedding load) during curtailment events. The notice to curtail under these offers is often rather short (15-30 minutes). Failure to comply during an event will result in penalties.

## Audience

The Program is offered to Duke Energy Carolinas, LLC’s (the “Company”) nonresidential customers who have not opted out and are able to meet the load shedding requirements.

## B & C. Impacts, Participants and Expenses

South Carolina PowerShare <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost	\$36.8	\$31.7	86%
Program Cost <sup>2</sup>	\$20.3	\$16.1	80%
MW <sup>3</sup>	437.6	374.2	85%
MWH	N/A	N/A	
Units		171	

**Notes on Tables:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V. Program costs include approximately \$0.7M in Non Residential Energy Assessments.
- 3) MW capability derived by taking average over specific PowerShare contract periods.

## Variance

Growth in customer participation has remained slowed in recent months—adding about 9 percent in MW in 2012.

## D. Qualitative Analysis

### Highlights

PS-Mandatory and PS-Generator have been well received by customers in both North Carolina and South Carolina. Most of the legacy customers enrolled in Interruptible Power Service (“IS”) and Standby Generator (“SG”) programs in South Carolina and many in North Carolina transitioned to PS-M and PS-G, respectively. The legacy SG customers that did not switch are often small generators and do not qualify for PS-G because of the minimum curtailable load requirement.

### Issues

In March 3, 2010, the U.S. Environmental Protection Agency (EPA) promulgated national emission standards for hazardous air pollutants (NESHAP) for existing stationary compression ignition reciprocating internal combustion engines (RICE). The EPA incorporated this new requirement into 40 CFR 63 Supart ZZZZ on May 3, 2010. Included in these rules were limitations on the use of “emergency

## PowerShare®

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generators” in demand response programs—maximum of 15 hours per year. For example, the current maximum hours for PS-M and PS-G are 100 hours annually. The EPA opened a period of additional comment upon this restriction in February 2011. It is anticipated that the EPA will release any changes resulting from the comment period later this year. The compliance date for existing diesel-fired RICE engines is May 3, 2013. In December 2011, the EPA reached a settlement with several interested parties where the rule would change to a maximum 60 hours annually. In May 2012, the EPA issued a notice that they wished to change the rule to 100 hours maximum—including testing. It is anticipated that this will result in a change to the rules by January 14, 2013.

The Company continues to see significant participation from the industrial customer segment. The Company is actively reviewing opportunities to increase participation by commercial customers. These businesses have a focus on ensuring tenants and/or customers are comfortable and the major electric end-uses are primarily HVAC and lighting. Therefore, it is difficult for many of these customers to curtail load through the programs up to a 10-hour interruption period. In addition, these customers are less likely to have on-site personnel to manually intervene in systems and settings for curtailment events. On the other hand, the Company has some existing Program participants who indicate that they have the capability and willingness to curtail load on even shorter notification such as five minutes or less. In both of these cases, automated processes to connect the utility signal of a demand response event with the customer’s equipment (end-use or generator) would be necessary.

### **Potential Changes**

The Company continues to evaluate some of the nuances of the recent EPA notice of changes to the NESHAP RICE rules. The Company believes at this time that no change to the existing tariffs will be necessary.

The Company entered into an agreement with interested parties in 2011 to create a new measure offer for PowerShare® CallOption. This offer would allow for up to 200 hours of “economic curtailments” and pay the customer a \$50/kW per year capacity credit. This measure has been evaluated and found to be cost effective. The Company filed the PowerShare® CallOption 200/5 measure in November 2012.

The Company is exploring Automated Demand Response technologies that have been deployed in other jurisdictions that could simplify the ways for commercial customers to curtail. By combining these effects across many facilities, like those of a national chain account, load-shedding strategies could be staggered across several stores in order to give a substantial amount of curtailed load without unduly impacting the end-use customer’s operation. Program changes that allow for aggregating accounts for the purpose of demand response would be one of the areas that would need to be addressed. These same technologies would enable “fast-DR” strategies with customers who have the capability to curtail load in five minutes or less.

### **E. Marketing Strategy**

Marketing efforts for the Program have focused on the relationship between the Company’s account managers and their assigned customers. As part of their normal contact with customers, the Account Managers introduce the Program, including any new options/offers, while explaining the value proposition to the customer. Account Managers share in-house analytical spreadsheets that show the specific incentives for each offer as applied to the customer’s specific load profile as well as collateral to explain the details of all the Program offers.

### **F. Evaluation, Measurement and Verification**

TecMarket Works, the Company’s third-party evaluator, provided the process report for the Program for 2010 and 2011 in January 2012. Several recommendations were included in this report based on interviews with program management and current customers. The results of this evaluation were presented to the Company’s Collaborative in June 2012.

## PowerShare®

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Based on the evaluation performed by the Company's staff following the procedures discussed above, the resulting Program impacts during 2011 are produced from the M&V process and should be viewed as the actual load reduction impacts received on event days in 2011. The results of this evaluation were presented to the Company's Collaborative in December 2012.

The impact evaluation report for the 2012 Program is scheduled to be completed in Q2 of 2013.

## Residential Energy Assessments

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### A. Description

The Residential Energy Assessments program includes two programs: 1) Personalized Energy Report® and 2) Home Energy House Call.

The **Personalized Energy Report® (“PER”) Program** provides targeted Duke Energy Carolinas LLC’s (the “Company”) customers with a customized report aimed at helping them better manage their energy costs.

This report provides customers:

- Up to 12 months of energy usage history
- Pie chart breakdown of where energy is being used
- Comparison of their energy usage to similar homes
- Customized energy tips to help save energy and money

The PER Program utilizes two primary marketing channels to acquire customers. Customers receive a direct mail offer that allows them to complete a home energy survey either in hardcopy format or online where customers sign into their Online Services (OLS) bill pay and view environment. Customers who participate in the mailed offer are asked to complete and return the enclosed survey. Once the survey is processed, the customer’s Personalized Energy Report is mailed to the customer. Online participants can view and print their report in a PDF format immediately after completing the online survey.

The Company partners with several key vendors in support of the PER Program: McKay, Aclara and Niagara. McKay is responsible for printing the solicitation letters, surveys and final reports. Aclara combines customer usage data with survey responses, provided by Kindred, to produce the customized report. Niagara provides fulfillment of the six CFL bulb incentives.

The **Home Energy House Call (“HEHC”) Program** is a free in-home assessment designed to help customers reduce energy usage and save money. An energy specialist completes a 60 to 90 minute walk through assessment of the home and analyzes energy usage to identify energy saving opportunities. The Building Performance Institute (“BPI”) certified energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. A customized report is provided to the customer that identifies actions the customer can take to increase their home efficiency. Example recommendations might include the following:

- Turning off vampire load equipment when not in use
- Turning off lights when not in the room
- Using CFLs in light fixtures
- Using a programmable thermostat to better manage heating and cooling usage
- Replacing older equipment
- Adding insulation and sealing the home

Customers receive an Energy Efficiency Starter Kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures such as CFLs, low flow shower head, low flow faucet aerators, outlet/switch gaskets, weather stripping and energy saving tips booklet.

The Company partners with several key vendors in support of the HEHC program: Wisconsin Energy Conservation Corporation (“WECC”), Proto Type, CustomerLink and AM Conservation. WECC administers the assessment component of the program. Additional key vendors include ProtoType for mailing services, CustomerLink for customer care support and scheduling (call center and back office), and AM Conservation for fulfillment of the Energy Efficiency Starter Kits.

## Residential Energy Assessments

### Audience

PER targets the Company's residential customers that own a single-family home with at least four months of billing history.

HEHC targets the Company's residential customers that own a single-family residence with at least four months of billing history and have central air, electric heat or an electric water heater.

### B & C. Impacts, Participants and Expenses

Residential Energy Assessments <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost <sup>2</sup>	\$17.3	\$4.3	25%
Program Cost <sup>3</sup>	\$6.2	\$2.8	46%
MW <sup>4</sup>	8.1	1.6	20%
MWH	54,513	10,487	19%
Units		27,734	

**Notes on Table:**  
 1) Numbers rounded.  
 2) As filed program costs do not include M&V. Actual costs may include M&V.  
 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

### D. Qualitative Analysis

#### Personalized Energy Report Program

##### Issues

The 2012 Carolinas PER campaign had a 17 percent response which is lower than past response rates of 20 percent. The Company has reached a saturation level with the PER Program.

##### Potential Changes

The Company's customers will no longer receive CFL bulbs for completing the survey and there will no longer be a hardcopy version of the survey or report. However, customers will still be able to complete the survey online and view their Personalized Energy Report® (PER) online instantly after completing the online survey.

#### Home Energy House Call Program

##### Highlights

Smaller and more frequent direct mail campaigns have reduced the wait time between enrollment and assessment completion. Customers may schedule an appointment as early as the next day if they choose or schedule out as far as six weeks. The scheduling tool allows a customer service representative to ease the scheduling process for the customer. The Company has determined that by making this change, customers are less likely to cancel their appointment, ensuring all energy specialists have a full schedule and maximizing their efforts. The HEHC Program has brought on additional energy specialists to handle any over flow of appointments and ensure all customers are served within the appropriate window of time, even those who were not targeted by a direct mail/email campaign.

HEHC continues to test email communications as another potential marketing channel. The test included customers who had elected to receive email correspondence. The response rates are similar to the Program's direct mail rates of 1% to 3%, but the cost per acquisition was much lower. An example of the email message is available in the Appendix. The channel reached an untapped market that may not have



## Residential Energy Assessments

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responded to the direct mail marketing. HEHC will continue to use this channel and revise messaging to the appropriate audience based on customer PRIZM data.

Analysis has been completed to improve the overall customer experience for the 60 to 90 minute assessments. In addition, assessment questions and procedures have been reviewed to improve the process flow and clarity of energy saving opportunities. Cross selling opportunities of other energy efficiency programs have been incorporated into the assessment to allow customers an opportunity to take action in improving their home's efficiency. Face-to-face training has occurred with all of the energy specialists which addressed the items listed above. Based on secret shoppers' feedback and quality inspections, the HEHC energy specialists appear to be performing better than ever while engaging with the customer.

The marketing strategy executed from January 2012 through September 2012 did not yield the expected response rates. A new marketing strategy has been developed to address the low response rate. Printed marketing collateral for the HEHC Program has been revised, and promotion of the HEHC Program has been added to the Company's online services home page. As a result of these changes, the response rates have doubled from 1% to 2%.

### Issues

HEHC Program participants were sent a follow-up letter, reminding the customer of the audit and providing additional low to no cost ways to continue improving the efficiency of their home. The Company determined the letter did not add any additional value from the audit and sparked more customers asking the Company to provide an extra Energy Efficiency Starter Kit.

### Potential Changes

Some program enhancements to increase program impact raise participation satisfaction levels and establish the Company as a preferred energy provider being considered includes:

- Evaluating other measures for the Energy Efficiency Start Kit. Current analysis is taking place to determine market opportunities.
- Removing the geographic limitation and begin to mass promote utilizing our delivery channels and possibly adding new channels through the Company's online services homepage. Expected implementation January 2013.
- Creating a separate customer wait list for those willing to accept last minute appointments.

## E. Marketing Strategy

### Personalized Energy Report Program

In 2012, the marketing of the Program focused on improving new customer acquisition through the direct mail channel. Homeowners with 12 months of usage history were targeted in order to show a trend in energy use. Additional criteria included customers with above-average energy use who had few CFLs installed in the home.

Targeted customers received a cover letter explaining the benefits of the Program and a survey to complete with a postage-paid return envelope. Within four to six weeks, participants received a Personalized Energy Report® and a free six-pack of CFLs. A postcard was placed in the bulb packaging that encouraged customers to go online and check their eligibility to receive additional free bulbs. Examples of these marketing materials are available in the Appendix.

### Home Energy House Call Program

Program participation is primarily driven through targeted mailings to pre-qualified residential customers. To supplement this activity and keep acquisition costs low, email marketing will be used when targeted

## Residential Energy Assessments

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customers have elected to receive offers electronically. Utilizing two different marketing channels will increase awareness levels of the Program, thus potentially increasing program participation.

Home Energy House Call program information and an online assessment request form is available at [www.duke-energy.com](http://www.duke-energy.com).

### **F. Evaluation, Measurement and Verification**

#### **Personalized Energy Report Program**

Evaluation activities are currently in progress. The next evaluation is scheduled for the first quarter of 2013.

#### **Home Energy House Call Program**

TecMarket Works began the process evaluation with interviews of program management and a sample of participants in the second quarter of 2012. The next process report and impact report is expected in the first quarter of 2013.

## Residential Energy Assessments

### G. Appendix

#### Personalized Energy Report - Cover Letter

<<Date>>

<<First Name>> <<Last Name>>  
<<Name of Business>>  
<<0000 Mailing Address>>  
<<City>>, <<State>> <<Zip Code>>

Dear <<First Name>> <<Last Name>>:

Duke Energy wants to help you understand your energy usage, become more energy efficient, and save money, too. Our **Personalized Energy Report (PER)<sup>®</sup>** is a great place to start.

It's **free**. And it's **easy**. Simply answer some questions about your home's appliances and your family's lifestyle.

With your Personalized Energy Report (PER)<sup>®</sup>, you can:

- o understand how your household uses energy
- o view your home's month-to-month energy usage and seasonal trends
- o compare your home's energy usage to similar households in your area
- o receive energy-saving tips for your home
- o learn about programs that may save you money

**Let the savings begin!**  
We've included a copy of the Home Energy Survey. Be sure to complete both sides and mail it to us in the enclosed envelope by June 30, 2011. We'll mail your Personalized Energy Report (PER)<sup>®</sup> back to you within four to six weeks of receiving your completed survey!



**But wait. There's more...**  
Just for completing the survey, Duke Energy will send you a **free** six-pack of CFL bulbs. That's right... **FREE!**

Did you know that a single Compact Fluorescent Light (CFL) can last up to 10x longer than an incandescent bulb AND save \$30 in energy costs? Use them to replace your home's most frequently-used bulbs, and watch your savings grow to \$180 over the lifetime of the bulb!


**Together, we can make a difference.**  
Thank you for your interest in saving energy. We value your business, and we look forward to helping you take control of your monthly energy costs.

K. Griffin  
Program Manager

#### Personalized Energy Report Bulb - Packaging Postcard



Did you know you may be eligible to receive additional free CFLs from Duke Energy?




Congratulations on taking the first step toward saving energy and money. Your new CFLs will:

- Help you save on your electric bill – about \$30 over the lifetime of each bulb.
- Last up to 10 times longer than standard bulbs.
- Provide the same amount of light as standard bulbs but use about 75 percent less energy.

To see if you're eligible for more bulbs, call 1-800-943-7585 and press option 1. Or visit [www.duke-energy.com/per-cfl](http://www.duke-energy.com/per-cfl).

# Residential Energy Assessments

RECEIVE YOUR FREE, PERSONALIZED ENERGY REPORT (PER)\*



FOR THE ADDRESS SHOWN ABOVE, PLEASE ANSWER THE FOLLOWING QUESTIONS RELATED TO YOUR HOME AND ENERGY USAGE. FILL IN THE CIRCLES COMPLETELY USING BLUE OR BLACK INK.

**PROPERTY DETAILS**

1. What type of home best describes your primary residence? (check any one)

Detached single family

Duplex / 2 family

Townhouse

Apartment / Multi - Family / (3 or more units)

Condominium

Manufactured home

2. How many levels does your home have, excluding the basement and unfinished attic?

1

2

3

3. In what year was your home built?

Before 1959

1960 - 1979

1980 - 1989

1990 - 1997

1998 - 2000

2001 - 2007

2008

4. Does your home have an attic?

Yes

No

5. Does your home have a basement?

Yes, heated

Yes, unheated

No

6. Excluding bathrooms and hallways, how many rooms are in your home? (include finished basements)

<input type="checkbox"/> 1	<input type="checkbox"/> 6
<input type="checkbox"/> 2	<input type="checkbox"/> 7
<input type="checkbox"/> 3	<input type="checkbox"/> 8
<input type="checkbox"/> 4	<input type="checkbox"/> 9
<input type="checkbox"/> 5	<input type="checkbox"/> More than 9

7. How would you describe the size of the rooms in your home?

Above average

Average

Below average

8. Approximate size (heated area) of your home? Your answers to questions 6 & 7 above will allow us to estimate the size of your home in square feet. Or, if you know the square footage of your home, you may choose it here and we will use your input.

< 500

500-999

1000-1499

1500-1999

2000-2499

2500-2999

3000-3499

3500-3999

4000 or more

Don't know

**MAIN HEATING SYSTEM**

9. What is the fuel used in your primary heating system?

Electric

Natural Gas

Oil

Propane

Other (solar, wood, etc)

No heat system

10. Which of the following best describes your home's primary heating system?

Electric Baseboard or ceiling cable

Forced air furnace

Standard heat pump

Ground source heat pump

Water boiler

Steam boiler

Wood heating system

Heat pump with gas backup

Heat pump with propane backup

Heat pump with oil backup

No heat system

11. How old is your heating system?

0 - 4 years

5 - 9 years

10 - 14 years

15 - 19 years

20 years or greater

**COOLING SYSTEM**

12. Do you have a central cooling system? (If you use window or room air conditioners, you will note this in question 14)

No central cooling system

Central air conditioning

Heat Pump

13. If you have any cooling system, how old is it?

0 - 4 years

5 - 9 years

10 - 14 years

15 - 19 years

20 years or greater

14. Do you use room or window air conditioners?

Yes

No

15. How many room or window A/Cs?

1

2


3

16. If you have a central heating and cooling system with air ducts, are any of these ducts located in the attic?

Yes

No

Not applicable



## Residential Energy Assessments

17. What is your thermostat setting for a typical heating day and a typical cooling day in the afternoon?

**Heating**

- < 67 °
- 67 – 70 °F
- 71 – 73 °F
- 74 – 77 °F
- > 77 °F
- Thermostat off/ No thermostat

**Cooling**

- < 69 °
- 69 – 72 °F
- 73 – 76 °F
- 77 – 78 °F
- > 78 °F
- Thermostat off/ No thermostat

18. Do you have any of the following comfort issues in your home?

a. Cold drafts in the winter

- Yes
- No

b. Sweaty windows in the winter

- Yes
- No

c. Cooling system will not keep the home comfortable

- Yes
- No

d. Heating system will not keep the home comfortable

- Yes
- No

e. Uneven temperatures between rooms

- Yes
- No

19. How many people live in your home?

- 1
- 2
- 3
- 4
- 5
- 6
- 7 or more

20. Do you own or rent this home?

- Own
- Rent

21. What fuel is used by your water heater?

- Electric
- Natural Gas
- Propane
- Other
- None

22. What is the age of your water heater?

- 0 – 4 years
- 5 – 9 years
- 10 – 14 years
- 15 – 19 years
- 20 years or greater

23. What type of fuel do you use for clothes drying?

- Electric
- Natural Gas
- Other
- None

24. What type of fuel do you use for your cook top?

- Electric
- Natural Gas
- Other
- None

25. What type of fuel do you use for your oven?

- Electric
- Natural Gas
- Other
- None

26. a. Do you have a swimming pool?

- Yes
- No

b. Do you have a pool heater?

- Yes
- No

c. What type of fuel do you use to heat your pool?

- Electric
- Natural Gas
- Oil
- Propane
- Not applicable

27. a. Do you have a hot tub?

- Yes
- No

b. What type of fuel do you use to heat your hot tub?

- Electric
- Natural Gas
- Oil
- Propane

28. Would a two degree increase in your home's indoor temperature during summer weekday afternoons affect your family's comfort?

- Not at all
- A small impact
- A moderate impact
- A large impact

29. Are you planning to make any large purchases to improve the energy efficiency of your home within the next three years?

- Yes
- No
- Not sure

30. How many CFLs\* do you have installed in your home?

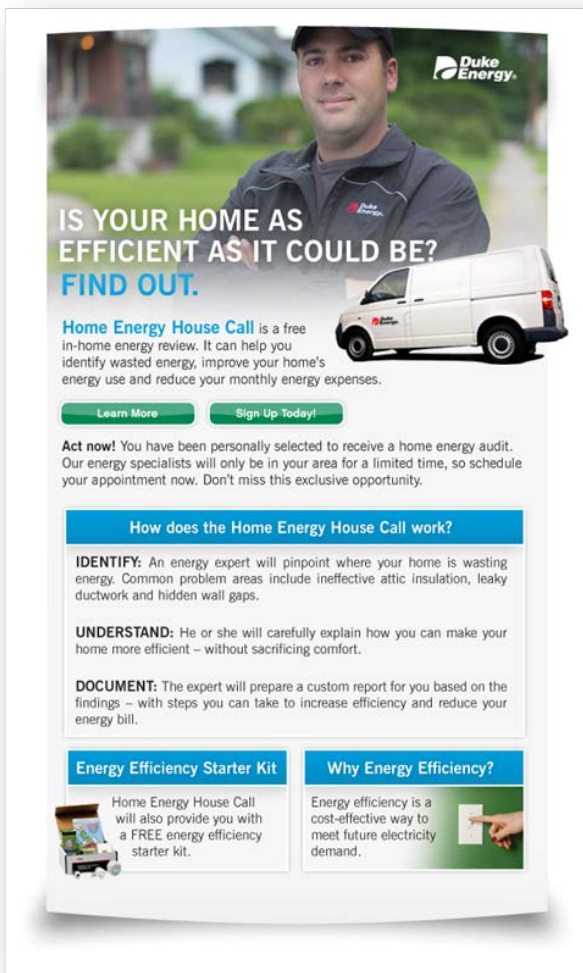


31. Please print your email address in the boxes below:

\*compact fluorescent light bulbs

## Residential Energy Assessments

### Home Energy House Call E-mail Message



The graphic features a background image of a Duke Energy technician in a grey uniform standing in front of a house. The Duke Energy logo is in the top right corner. The main headline asks 'IS YOUR HOME AS EFFICIENT AS IT COULD BE? FIND OUT.' Below this, a white van is shown. The text describes the 'Home Energy House Call' as a free in-home energy review. Two buttons, 'Learn More' and 'Sign Up Today!', are provided. A section titled 'How does the Home Energy House Call work?' lists three steps: IDENTIFY, UNDERSTAND, and DOCUMENT. At the bottom, two boxes describe the 'Energy Efficiency Starter Kit' and 'Why Energy Efficiency?'.

**IS YOUR HOME AS EFFICIENT AS IT COULD BE?  
FIND OUT.**

**Home Energy House Call** is a free in-home energy review. It can help you identify wasted energy, improve your home's energy use and reduce your monthly energy expenses.

[Learn More](#) [Sign Up Today!](#)

**Act now!** You have been personally selected to receive a home energy audit. Our energy specialists will only be in your area for a limited time, so schedule your appointment now. Don't miss this exclusive opportunity.

**How does the Home Energy House Call work?**

**IDENTIFY:** An energy expert will pinpoint where your home is wasting energy. Common problem areas include ineffective attic insulation, leaky ductwork and hidden wall gaps.

**UNDERSTAND:** He or she will carefully explain how you can make your home more efficient – without sacrificing comfort.

**DOCUMENT:** The expert will prepare a custom report for you based on the findings – with steps you can take to increase efficiency and reduce your energy bill.

**Energy Efficiency Starter Kit**  
Home Energy House Call will also provide you with a FREE energy efficiency starter kit.

**Why Energy Efficiency?**  
Energy efficiency is a cost-effective way to meet future electricity demand.

# Residential Energy Assessments

## Home Energy House Call Direct Mail Message (January – September)



**SAVE SOME GREEN  
WITH A HOME ENERGY HOUSE CALL**



**REDUCE YOUR ENERGY BILL**

Home Energy House Call is a free in-home energy assessment designed to help you learn how your home uses energy and how you can save on your monthly bills. The program provides personalized information unique to your home and energy practices.

An energy specialist will visit your home to

- Pinpoint potential energy problems in your home at no cost to you
- Explain how to improve the heating and cooling comfort level of your home
- Help you preserve the environment for the future and keep electric costs low
- Provide you with a free Energy Efficiency Starter Kit

From the energy specialist's observations, a customized report is prepared detailing steps you can take to increase efficiency and reduce your energy bill.

**RECEIVE FREE ENERGY SAVING ITEMS**  
As a part of your Home Energy House Call, you will receive a free Energy Efficiency Starter Kit. At your request, the energy specialist can install the efficiency items so that you can begin saving right away.

**TO QUALIFY, YOU MUST**

- Be a Duke Energy residential customer in Ohio or Kentucky
- Own a single-family home and have lived there for at least four months (rental properties and mobile homes do not qualify)

**START SAVING TODAY!**  
To sign up for your free Home Energy House Call, use one of the following methods

- Visit us online at [www.duke-energy.com](http://www.duke-energy.com)
- Call 1-877-388-7676 (toll free)
- Complete and return the postage-paid reply card

\*Items in actual kit may differ slightly from those shown in photo.

Innovative efficiency programs, by carefully balancing all of these sources, we can meet our goal of providing you with reliable and affordable energy.

With energy efficiency programs such as Home Energy House Call, Duke Energy is helping you lower your energy consumption, and your energy savings helps us to meet the growing need for electricity. By participating in Home Energy House Call, you help preserve the environment, conserve energy and lower your bill.

Working together, we can reduce your energy consumption and contribute to a better tomorrow for all!

**BUSINESS REPLY MAIL PERMIT NO. 1000 DULUTH MN 55800**

ATTN: HOME ENERGY EFFICIENCY STARTER KIT  
DUKE ENERGY  
1000 W. WASHINGTON ST.  
DULUTH MN 55800

**SIGN UP TODAY**

**TO QUALIFY, YOU MUST**

- Be a Duke Energy residential customer in Ohio or Kentucky
- Own a single-family home and have lived there for at least four months (rental properties and mobile homes do not qualify)

Name on Account \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Daytime Phone \_\_\_\_\_  
Evening Phone \_\_\_\_\_  
County of Residence \_\_\_\_\_  
Account Number \_\_\_\_\_

VISIT [WWW.DUKE-ENERGY.COM](http://WWW.DUKE-ENERGY.COM) TO SIGN UP OR CALL 1-877-388-7676 (TOLL FREE) OR RETURN THIS CARD.

**EXPERIENCE THE BENEFITS**

- A trained Energy Specialist will look for energy issues in your home at no cost to you
- Learn how you can improve your home and save energy with a customized report
- Improve the comfort of your home
- Receive a free Energy Efficiency Starter Kit
- Help preserve the environment for the future and keep electric costs low




**Mixed Sources**  
Duke Energy has an ongoing commitment to the use of mixed sources of energy, including coal, natural gas, wind, solar, hydro, and nuclear power.

**FSC**  
080097 - Revised 1/08

## Home Energy House Call Direct Mail Message (September – Present)





Is your home as efficient as it could be?  
Find out with a Home Energy House Call.



**FREE**  
ENERGY EFFICIENCY STARTER KIT

**\$30**  
VALUE

## Residential Neighborhood Program

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### A. Description

The Residential Neighborhood Program (“Program”) assists low-income customers in reducing energy costs through energy education and by installing or providing energy efficient measures for each customer’s residence. The primary goal of the Program is to empower low-income customers to better manage their energy usage.

Customers participating in the Program will receive an energy assessment to identify energy efficiency opportunities in the customer’s home and one-on-one education on energy efficiency techniques and measures. Additionally, the customer receives a comprehensive package of energy efficient measures. Each measure listed below will be installed or provided to the extent the measure is identified as energy efficiency opportunity based on the results of the energy assessment.

1. Compact Fluorescent Bulbs - Up to 15 compact fluorescent bulbs to replace incandescent bulbs.
2. Electric Water Heater Wrap and Insulation for Water Pipes.
3. Electric Water Heater Temperature Check and Adjustment.
4. Low-Flow Faucet Aerators - Up to three low-flow faucet aerators.
5. Low-Flow Showerheads - Up to two low-flow showerheads.
6. Wall Plate Thermometer.
7. HVAC Winterization Kits – Up to three winterization HVAC kits for wall/window air conditioning units will be provided along with education on the proper use, installation and value of the winterization kit as a method of stopping air infiltration.
8. HVAC Filters - A one-year supply of HVAC filters will be provided along with instructions on the proper method for installing a replacement filter.
9. Change Filter Calendar.
10. Air Infiltration Reduction Measures - Weather stripping, door sweeps, caulk, foam sealant and clear patch tape will be installed to reduce or stop air infiltration around doors, windows, attic hatches and plumbing penetrations.

### Audience

The Program is available to individually-metered residential customers in neighborhoods with approximately 50% of the homes identified as low income based on third party and census data, which includes income level and household size. Areas targeted for participation in the Program will typically have approximately 50% or more of the households with an income equal to or less than 200% of the poverty level established by the federal government.

### B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
South Carolina Nominal Avoided Cost	\$0.0		
Program Cost	\$0.0	\$0.1	
MW	\$0.0	0.0	
MWH	\$0.0	0.0	
Units <sup>3</sup>		0	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as filed comparison for Residential Neighborhood because it was not included in the original filing.



## Residential Neighborhood Program

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The Program was approved by the Public Service Commission of South Carolina on May 9, 2012 and North Carolina Utilities Commission on June 29, 2012. The Program will launch in early 2013.

### **D. Qualitative Analysis**

#### **Highlights**

Duke Energy Carolinas, LLC (the "Company") has selected GoodCents as the administrator for the Program and is currently preparing for the Program to launch early in the second quarter of 2013.

#### **Issues**

The Company and GoodCents will work together to ensure that the Program is launched in a sustainable manner and garners support with the community.

#### **Potential Changes**

There are currently no planned changes for the Program.

### **E. Marketing Strategy**

The Company will target neighborhoods with a significant low-income customer base using a grassroots marketing approach to interact on an individual customer basis and gain trust. Participation is driven through a neighborhood kick-off event that includes trusted community leaders explaining the benefits of the Program. The purpose of the kick-off event is to rally the neighborhood around energy efficiency and to educate customers on methods to lower their energy bills. Customers will have the option to sign up for an energy assessment at the time of the event.

In addition to the kick-off event, the Company plans to use the following avenues to inform potential customers about the Program:

- Direct mail
- Door hangers
- Press releases
- Community presentations and partnerships
- Inclusion in community publications such as newsletters, etc.

### **F. Evaluation, Measurement and Verification**

The evaluation activities of the Program are scheduled to begin in early 2013. Provided that the Program launches as planned, the process evaluation report will be completed in Quarter 4 of 2013. The impact analysis methodology will be determined in Q3 of 2013 leveraging the process evaluation work which will document the Program operations and measures.

## Residential Retrofit

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### A. Description

The purpose of the Residential Retrofit program (“Program”) is to aid residential customers in assessing their energy use, to provide recommendations for more efficient use of energy in their homes and to encourage the installation of the energy efficiency improvement by offsetting a portion of the cost of implementing the recommendations. The Program was approved by the Public Service Commission of South Carolina on February 24, 2010 and the North Carolina Utilities Commission on January 25, 2011.

### Audience

The Program is available for up to 300 customers in North Carolina and up to 100 customers in South Carolina who live in owner-occupied single-family residences served on a residential rate schedule from Duke Energy Carolinas, LLC’s (the “Company”) retail distribution system.

### B & C. Impacts, Participants and Expenses

Residential Retrofit <sup>12</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
South Carolina Nominal Avoided Cost		\$0.3	
Program Cost		\$0.2	
MW		0.0	
MWH		283.7	
Units		65	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as filed comparison for Residential Home Retrofit because it was not included in the original filing.

### D. Qualitative Analysis

#### South Carolina Pilot

#### Highlights

The South Carolina Residential Retrofit program launched in August 2010 as Energy Solutions @ Home (ES@H). ES@H was designed as a bundled energy efficiency solution for homeowners where trained energy professionals identify and install high impact energy home improvements. When homeowners make energy improvements to their homes, they receive on-going energy savings from lower heating and cooling costs because the leaky gaps and non-insulated areas of their homes are eliminated. It is an easy process for the customer because the Company identifies the most effective energy-saving home improvements, provides a team of energy experts including skilled contractors and offers an incentive to lower the customer’s installation cost.

The Program focuses on the top four energy home improvements: air sealing, attic insulation, duct sealing and duct insulation. Offered individually or in combination, when these improvements are correctly installed, they substantially lower the amount of energy loss in a home and provide the greatest energy savings opportunities.

The process includes three steps and begins with a phone call.

#### Step 1: Phone Assessment

The Company helps customers determine whether they are a good candidate for the offer via a short phone conversation with one of the Company’s Energy Experts (“Expert”). The Expert uses energy audit software to conduct a high-level assessment of the customer’s home considering the home’s age, size, heating equipment, electric use and estimated insulation levels. The customer receives the following results during the call:

## Residential Retrofit

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- installation recommendations
- anticipated energy savings and payback
- estimated installation cost
- estimated incentive amount

With the Expert's assistance, customers decide whether these improvements are right for them. If so, the Expert then helps the customer take the next step by scheduling an in-home assessment.

### **Step 2: In-home Assessment**

A Building Performance Institute (BPI) certified assessor visits the home, listens to the customer's concerns and verifies or updates the information collected during the phone call. Using the same audit tool, the assessor produces a final project plan on-site with the final recommendations, exact costs, custom incentive and out-of-pocket payment amount. In addition, the project plan includes the estimated energy savings and project payback period.

### **Step 3: Installation**

Customers who agree to the project plan are contacted by their assigned program contractor to schedule the installation. When the work is complete, the utility-offered incentive is deducted from the contractor's invoice as an immediate customer benefit.

### **Issues**

The Program was based on the hypothesis that customers wanted a high touch turn-key offer, and a custom incentive that paid a higher incentive to the more inefficient homes would drive demand from inefficient customers. A bidding process was used to select two local building envelope contractors to handle the energy efficiency installations. The Program was marketed to homeowners in the Gaffney, Spartanburg and Greenville areas from August 2010 through March 2011. Over 5,800 customers were targeted in one of five different direct mail campaigns. Only four South Carolina pilot participants completed the full program requirements by installing the recommended improvements in their homes. The achieved Program participation was much lower than expected. Due to low participation, the Program was deemed non-cost effective.

Customers were reluctant to commit to a program with a custom incentive because of the uncertainty of the amount of incentive they would receive. Customers wanted greater flexibility in selecting an installation contractor and the types of improvement installed. Many customers did not believe their homes were inefficient; therefore they did not feel the offer applied to them.

### **Post-Pilot Plans**

A high touch turn-key approach did not deliver the level of participation expected. Due to results of the pilot program, the Company will not move forward to commercialize this Program. Instead, the Company filed to offer attic insulation and air sealing, duct insulation and sealing, and HVAC tune-ups as part of the residential Smart Saver program as a prescriptive offer. The Public Service Commission of South Carolina approved the Company's request to add tune-ups and seal measures to the residential Smart Saver program on May 23, 2012.

### **North Carolina Pilot**

#### **Highlights**

The Program was approved by the North Carolina Utilities Commission on January 25, 2011. The Company, through its partnerships with three cities -- Carrboro, Chapel Hill and Greensboro -- offered the Program to eligible customers. The Carrboro program began June 1, 2011 with information on the City of Carrboro's website and contractor education. The Chapel Hill program began in July 2011, and the Greensboro program began in December 2011. The Company provided sales training to contractors in each of the pilot locations on June 15 and 16, 2011 to help the installers and contractors close more projects.

## Residential Retrofit

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The Company supported the city-offered Program by providing a financial incentive to encourage the installation specific high efficiency home improvements, attic insulation and air sealing, duct sealing and duct insulation. Incentives offered by the Company were paid after verification that the qualifying improvements have been installed. The incentive offered by the Company was in addition to the incentives provided by the City's Program. The Chapel Hill/Carrboro Program had 57 participants, and the Greensboro Program had 33 participants.

### **Issues**

There were no issues with this Program.

### **Post-Pilot Plans**

TecMarket Works completed a Desk Review on the Program offered to North Carolina pilot participants. Based on results of the Desk Review and information learned from pilot participants, the Company will not file to commercialize the Program. The Company filed notification with the Public Service Commission of South Carolina to discontinue the pilot on March 29, 2012. Instead, the Company filed to offer attic insulation and air sealing, duct insulation and sealing, and HVAC tune-ups as part of the residential Smart \$aver program as a prescriptive offer. The Public Service Commission of South Carolina approved the Company's request to add tune – ups and seal measures to the residential Smart \$aver program on May 23, 2012.

### **E. Marketing Strategy**

#### **South Carolina Pilot**

Marketing for the South Carolina pilot Program began in August 2010 using direct mail to reach the targeted customers. The multiple campaign mailings were mailed based upon customers' geographic location. The mail drops allowed contractors and auditors to serve customers efficiently, with minimum travel between the homes of pilot participants. The Program tested several direct mail campaigns to generate interest in the Program. The direct mail campaigns tested include a self-mailer, a postcard, a series of three postcards on the same theme, and a letter followed by a postcard coupled with outbound calls. In addition, the Company marketed the Program via the website where program descriptions, video and frequently asked questions provided the customer with detailed information on the Program. Marketing of the pilot Program ended in March 2011 due to low participation.

#### **North Carolina Pilot**

The Company partnered with three cities and their Program contractors to promote the pilot Program. Contractors were provided information on the Program along with marketing collateral to educate customers. The Company's offer was also promoted on the Program websites.

### **F. Evaluation, Measurement and Verification**

The desk review completed by TecMarket Works was filed on October 19, 2012 with the North Carolina Utilities Commission.

## Residential Smart \$aver®

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### A. Description

The Residential Smart \$aver® Program (“Program”) offers a variety of measures that allow customers to take action and reduce energy consumption. The Program includes offers for lighting measures and HVAC measures.

#### Compact Florescent Lamps Measure

The Compact Fluorescent Lamps (CFLs) measure is designed to increase the energy efficiency of residential customers by offering customers CFLs to install in high-use fixtures within their homes.

The CFLs are offered through multiple channels to eligible customers. The on-demand ordering platform enables eligible customers to request CFLs and have them shipped directly to their homes. Eligibility is based on past campaign participation (i.e., coupons, Business Reply Cards (BRCs) and other Duke Energy Carolinas, LLC’s (the “Company”) programs offering CFLs). Bulbs are available in 3-, 6-, 8-, 12- and 15-pack kits that have a mixture of 13 watt and 20 watt bulbs. The maximum number of bulbs available for each household is 15, but customers may choose to order less.

Customers have the flexibility to order and track their shipment through three separate channels:

- 1) Telephone: Customers may call a toll-free number to access the Interactive Voice Response (IVR) system, which provides prompts to facilitate the ordering process. Both English and Spanish-speaking customers may easily validate their account, determine their eligibility and order their CFLs over the phone.
- 2) The Company Web Site: Customers can go online to order CFLs. Eligibility requirements and frequently asked questions are also available.
- 3) Online Services (OLS): Customers enrolled in the Company’s Online Services may order CFLs through the Company’s web site, if they are eligible.

The benefits of providing these three distinct channels include:

- Improved customer experience
- Advanced inventory management
- Simplified program coordination
- Enhanced reporting
- Increased program participation
- Reduced program costs

#### Property Manager Channel

The Property Manager Channel (the “Channel”) allows the Company to target multi-family apartment complexes to direct install CFLs. Honeywell, the third-party vendor, manages distribution of CFLs via this Channel and partners with property managers in both North Carolina and South Carolina to enroll multi-family properties.

This Channel allows property managers to upgrade lighting with CFLs, reducing maintenance costs while improving tenant satisfaction by lowering energy bills. Each apartment may qualify for up to 12 CFLs per unit depending on the size.

Once enrolled, the property manager identifies the number of permanent lighting fixtures available. The Company provides the CFLs but the property manager pays for all shipping costs. The CFLs are

## Residential Smart Saver®

installed in permanent fixtures during routine maintenance visits. The property manager reports the number of bulbs installed to the Company. Honeywell validates this information and provides a report for each individual unit on the property.

### Residential HVAC Measures

In both North Carolina and South Carolina, the installation of a high-efficiency heat pump or air conditioner will result in a \$300 incentive. For replacement of an existing system, the Company's customer receives \$200, and the HVAC contractor receives the remaining \$100. For new home construction, the home builder receives the \$300 incentive but has the option to pass the incentive on to the customer.

The Company filed an application to add tune-ups and seal measures to the Program in both North Carolina and South Carolina. The Public Service Commission of South Carolina issued an Order approving the application on May 23, 2012, and the North Carolina Utilities Commission issued an Order approving the application on August 28, 2012. Eligible customers will receive incentives for the installation of measures such as sealing leaks and upgrading insulation in the attic (initial amount of \$250), upgrading duct insulation (initial amount of \$75), sealing duct systems (initial amount of \$100) and tuning up a heat pump or air conditioner (\$50). All incentives will be paid directly to the Company's customers.

GoodCents administers the HVAC segment of the Program and establishes relationships with home builders and HVAC and home performance contractors ("trade allies") who interface directly with residential customers. These trade allies adhere to Program requirements and submit the incentive application. Once the application is processed, GoodCents disburses the incentive checks to the customer.

In addition, GoodCents is responsible for processing calls from trade allies and customers about the HVAC segment of the Program.

### Audience

The program is available to Duke Energy Carolinas residential customers that meet the program eligibility requirements.

### B & C. Impacts, Participants and Expenses

Residential Smart Saver <sup>1</sup>			
<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 June 30, 2012	% of Target
South Carolina Nominal Avoided Cost	\$23.7	\$62.0	262%
Program Cost <sup>2</sup>	\$7.2	\$19.6	272%
MW <sup>3</sup>	8.6	24.2	283%
MWH	58,553.4	224,334.9	383%
Units		5,854,957	

**Notes on Table:**

- 1) Numbers rounded.
- 2) As filed program costs do not include M&V. Actual costs may include M&V.
- 3) As filed MW are annual maximum peak. We track coincident peak for impacts.

## Residential Smart \$aver®

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### D. Qualitative Analysis

#### CFL

##### Highlights

Many customers have participated in the CFL Program by ordering bulbs through the IVR, OLS and the Company's website. Customers find this process simple and enjoy the convenience of bulbs being shipped directly to their homes. Over 428,298 orders were placed in 2012. Participation is tracked at the account level which allows the Company to focus its attention and resources on non-program participants. Over 49% of the orders were placed through the toll-free phone number, while 26% of the orders were placed through OLS and 25% through the Company's website.

##### Issues

Analyzing customer data and finding ways to effectively market to non-participating customers.

##### Potential Changes

Innovative marketing campaigns will be utilized to improve awareness for hard-to-reach and late-adopter customers.

The Company filed notification under the Flexibility Guidelines with the North Carolina Utilities Commission on October 15, 2012 to expand its lighting offer to include specialty bulbs, such as indoor recessed lights, candelabras, three-way bulbs and dimmable bulbs. Building on the insights and lessons learned from the current CFL promotion, the Company will determine best practices and go to market options to inform customers of the specialty bulb offer. The Company plans to offer specialty bulbs in the second quarter of 2013.

#### CFL offering via Property Manager

##### Highlights

The Property Manager Program has been well received in both North Carolina and South Carolina. Marketing efforts including direct mail postcards, email campaigns, outbound calls and face-to-face meetings increased participation in the program in 2012. Over 239 properties in North Carolina and 94 properties in South Carolina have successfully installed energy efficient CFLs totaling over 417,000 bulbs.

##### Issues

During the summer months, many properties do not have the resources available to prioritize CFL installation. Higher unit turnover and air conditioner maintenance and repairs require the maintenance crew's attention. To address this issue, the Company allows property managers 90 days to complete installation.

Additionally, property managers express concern about paying for shipping the bulbs which contributes to lack of participation in the Program.

## Residential Smart \$aver®

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### Potential Changes

To minimize overages, Honeywell will begin subtracting 20% of the bulbs ordered by property managers. Honeywell will continue to educate apartment associations about the Program to increase awareness and participation in the Program. Honeywell will address the shipping issue by paying the shipping cost for the properties which should increase participation.

### Residential HVAC

#### Highlights

The Company and GoodCents continue to form strong relationships with valuable trade allies across both North Carolina and South Carolina. These partnerships help ensure application fulfillment and prompt payment of incentives, as well as maintain top-of-mind awareness of the Program and its benefits.

#### Issues

The buy-in and participation of the trade ally network is vital to the success of the HVAC segment of the Program. The Company and GoodCents continue to inform the trade ally network of the new measures; however, the Program aims to shift market practices away from some of the more commonly utilized practices which rely heavily on decentralized training and varying knowledge levels, as well as imprecise and manual field calculations, towards industry trained and certified trade allies using higher quality instruments and processes which has proven challenging and has slowed the recruitment process. While some trade allies have registered and are capable of offering the new measures, the Company expects the quantity of trade allies to increase during the coming year due to recently available equipment and increased customer demand.

### Potential Changes

Electronic submission of the incentive application is also under development to expedite fulfillment and payment disbursement.

## E. Marketing Strategy

### CFL

The overall strategy of the Program is to reach residential customers who have not adopted CFL bulbs. The Company will continue to educate customers on the benefits of CFLs while addressing barriers for customers who have not participated in the Program. Additionally, the ease of Program participation will also be highlighted to encourage use of the on-demand ordering platform.

Direct mail marketing has generated a significant number of orders in both North Carolina and South Carolina. The individual response rates to the different campaigns have averaged around 13%. Samples of the marketing collateral used for these campaigns are available in the Appendix.

Honeywell markets to Carolina property managers through various channels including tradeshow, email and Apartment Association events. Additionally, the Company maintains information on the My Duke website. Multi-family properties in the Carolinas see a promotional offer when they log in to their My Duke profile.



## Residential Smart \$aver®

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### Residential HVAC

Promotion of the HVAC segment of the Program is primarily targeted to HVAC and home performance contractors as well as new home builders. Trade allies are important to the Program's success because they interface with the customer during the decision-making event, which does not occur often for most customers.

GoodCents is responsible for promotion of the Program directly to potential trade allies including HVAC and home performance contractors and new home builders. Program information and trade ally enrollment forms are available on the Program's website to encourage participation. By increasing the participation of trade allies, it ensures more customers are aware of the Program at time of purchase.

The Company implemented several customer marketing campaigns during the third and fourth quarter of 2012 using both the direct mail and email channels to reach customers in South Carolina and utilized the email channel to reach customers in North Carolina during the fourth quarter.

### F. Evaluation, Measurement and Verification

#### CFL

The final process and impact report for the 2011 Smart \$aver Residential Energy Efficiency CFL program was finalized on September 28, 2012. The findings from the report were shared with the Company's Collaborative in December 2012.

**Table 1. Estimated Overall Impacts**

	Gross Savings	Net Savings
<b>Annual Savings Per Bulb Distributed</b>		
kWh	33.6	30.6
kW	0.0056	0.0051

The impacts in this table were calculated using engineering algorithms. These estimates also take into account a participant's tendency to over-report operating hours and the length of daylight at the time of the year the survey results were collected. These two factors and the reasons for their inclusion are explained in their respective sections in the report. The net-to-gross ratio used to calculate net savings is 91.09%. This ratio includes freeridership and spillover and is described in detail in the report.

### Significant Process Evaluation Findings

#### From the Management Interviews

- Overall, this Program was highly successful in meeting its goals and is not experiencing any significant problems. A member of the Company's program management summarized it as "working wonderfully." The IVR and online platforms have performed well and exceeded all goals for increasing CFL participation.

## Residential Smart \$aver®

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- The Company wants to grow the portfolio to include specialty bulbs in their promotional offer. TecMarket Works agrees with this expansion of program offerings.
- Consumer education is an area for potentially enhancing CFL acceptance and adoption.

### From the Participant Surveys

- Overall program and CFL satisfaction levels are very high, and overall the Company's satisfaction is high.
- The direct mail CFL program in the Carolinas is doing an excellent job of targeting participants with little or no prior CFL use. Prior to the program, CFL saturation was low within the direct mail CFL participant population.
- The desire to "save on utility costs" was the most influential factor in their decision to obtain CFLs via the program. "Desire to save energy" placed second.
- For those participants that used the online CFL order tracking system, the mean satisfaction rating is very high.
- While the two highest rated factors influencing bulb purchasing were energy savings and cost savings, factors often perceived as barriers to CFL adoption such as aesthetics, mercury content and availability of dimmable bulbs were among the lowest rated factors having little effect on adoption and use.
- Outdoor floodlights and dimmable CFLs appear to be the best candidate for a specialty CFL discount program targeting all current CFL participants.

### From the Non-Participant Surveys

- Overall satisfaction with the Company across all non-participants surveyed averaged 8.5 out of 10. A high score.
- The most prevalent reason for not participating in the Program was because customers did not find the offer compelling enough to take action.
- Despite not participating in the Program, nearly two thirds of the non-participants surveyed indicated that learning of the Company's CFL program had increased their awareness about how to save energy by using CFLs. This suggests that the Program is having an energy savings transformative effect on non-participants.
- The desire to save on utility costs and the desire to be environmentally responsible tied as the most influential factors on CFL purchases by non-participants.

### Significant Impact Evaluation Findings

- Average wattage of a replaced incandescent is 64.5 watts.
- A first year installation rate of 67.2% was reported, with an ISR of 80.0%.
- Living/family room, master bedroom and kitchen, in that order, are the three most popular room types for bulb replacements; together they make up 63% of all bulb installations.
- Surveyed participants report slightly increased operating hours when switching from an incandescent to a CFL having a very small effect on energy savings.

### HVAC

The impact report for the 2010 Residential Smart \$aver HVAC program was finalized on January 27, 2012. The findings from the report were shared with the Company's Collaborative in June 2012.

Table 2 presents a summary of savings associated with the Residential Smart \$aver program. These results were obtained based on a model which uses the results of the engineering analysis within a statistical billing data analysis (the SAE approach). Program participation by HVAC system type, size,

## Residential Smart \$aver®

SEER and location were applied to the savings per ton obtained in three geographic locations to compute the Program savings.

**Table 3. Summary of Program Savings by Measure**

Metric	Air Conditioner	Heat Pump
Participation Count	2,075	3,588
Gross kW per unit	0.260	0.335
Gross kWh per unit	270.6	636.5
Freeridership rate	32.1%	32.1%
Spillover rate	0%	0%
NTG ratio	67.9%	67.9%
Net kW per unit	0.177	0.227
Net kWh per unit	184	432
Measure Life (years) <sup>1</sup>	15	15
EUL net kWh per unit	2760	6480
Gross Ex Post kWh Savings	561,485	2,283,910
Gross Ex Post kW Savings	540	1,201

The impact report for the 2011-2012 Residential Smart \$aver Program should be complete by Q2 of 2013.

The process report for the 2011-2012 Residential Smart \$aver Program was finalized on November 21, 2012. The findings from the report were shared with the Company's Collaborative in December 2012.

### Key Findings from the Management Interviews

- The Residential Smart \$aver Program offered in the Company's service territory as benefited from the experience that the Company has gained from implementing Smart \$aver in the Midwest.
- The total processing time from application to approval to the time the incentive checks were sent out was eight business days. From an industry standpoint, this performance constituted best in class.

<sup>1</sup> Effective Useful Life (EUL) taken from 2011 Database for Energy Efficiency Resources (DEER) update study. See [www.deeresources.com](http://www.deeresources.com)

## Residential Smart \$aver®

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### Key Findings from the Trade Ally Interviews

- A majority (13 out of 21, or 62%) of the trade allies mentioned that they thought ductless air conditioning units and handlers should be considered for the Program – eight trade allies in North Carolina and five in South Carolina mentioned the technology.
- Trade allies mentioned inverter heat pumps and ductless mini-split systems should also be considered for the Program.

### Key Findings from the Participant Surveys

- Customers who participated are generally very satisfied with the HVAC Smart \$aver Program.
  - 88.2% rated their satisfaction with the Program an “8 or higher” on a 10-point scale, while 40.9% rated their satisfaction a “10 out of 10.”
  - For most customers, their favorite part was saving money through an immediate rebate (66.3%), while saving energy was secondary (mentioned by about 30%, including those who hope to save money from increased efficiency<sup>2</sup>). A large majority (81.8%) could not name a “least favorite” aspect of participating in Smart \$aver.
- About one quarter of participants intend to do more than just HVAC Smart \$aver to improve energy efficiency:
  - 28.9% of participants said they have taken other energy efficiency actions influenced by HVAC Smart \$aver.
  - 22.5% of participants intend to make other major purchases to improve energy efficiency in the next three years.
- Trade allies are very important to spreading awareness (87.7% of customers heard about Smart \$aver from a trade ally) and for getting customers to participate (trade allies filled out Smart \$aver paperwork for 80.7% of customers).
  - Trade allies are especially important for larger installations (multiple rebate households).
  - Not that many customers heard about Smart \$aver directly from the Company via brochures (2.7%), or the web site (2.1%), or even advertising (6.4%).
- Customers are also generally very satisfied with the Company:
  - 87.2% rated their satisfaction with the Company an “8 or higher” on a 10-point scale, while 41.2% rated their satisfaction a “10 out of 10.”
  - Dissatisfied customers most often complained of rate increases and the price of energy in general. Some also mentioned problems with loss of power.

### Recommendations

Based upon the management interviews, the evaluation team has no recommendations for improving the Program at this time. However, because the Company has selected a new vendor to manage the trade ally network and to process the applications, we recommend that the Company monitor the performance of the new vendor to see if they are able to maintain the high participation rates that the Smart \$aver Program historically enjoys. If participation drops, whether from trade allies or customers, the Company may wish to consider another process evaluation to determine the cause of the decrease. Otherwise, the evaluation team recommends that the new vendor be given one year to two years to implement Smart \$aver before another process evaluation is conducted.


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<sup>2</sup> This percentage also includes those that responded with “like saving energy and being more efficient in general” and “like learning about how to be more energy efficient in the future,” and “like saving resources/conservation/benefiting future generations/going green.”

# Residential Smart Saver®


## G. Appendix

### CFL – Email Message



**Lighten your energy bill without dimming your lighting.**

Wake up to energy savings with FREE compact fluorescent light (CFL) bulbs.\*

 **Order your FREE CFLs**

There's no comparison between CFLs and your standard incandescent bulbs. CFLs are 75 percent more efficient and last six times longer, meaning you'll save more money over time. Plus, CFLs are safe, emit the same light quality, and produce less heat than standard bulbs.


**With free CFLs, you can save:**

- 100 percent on the cost of the bulbs
- Up to \$90 or more per year in energy costs\*\*
- Up to \$600 in energy costs over the lifetime of these bulbs\*\*


Simply call or [visit us online](#) today to order yours – before they're gone.

\*Eligibility is based on previous participation in other energy efficiency programs sponsored by Duke Energy. Fifteen free CFLs are the maximum number that a participant (or their family) may receive under all Duke Energy program offerings.


\*\* Based on ENERGY STAR® statistics and the installation of 15 CFL bulbs.



**Order Online**  
Duke-Energy.com/Rise2Savings



**By Phone**  
Call 800-943-7585 (option 1)



### CFL – Bill Message

**Bill Image C#**

File

Electricity Usage	This Month	Last Year
Total KWH	1,154	1,342
Days	33	30
AVG KWH per Day	35	45
AVG Cost per Day	3.34	4.28

**Order your FREE compact fluorescent light bulbs today!**  
Call 1-800-943-7585 and choose option 1, or visit us on the web at [www.duke-energy.com/freecfls1](http://www.duke-energy.com/freecfls1) to see if you are eligible.

Our records indicate your telephone number is 336-595-4094. If this is incorrect, please follow the instructions on the back of the bill.

A late payment charge of 1.0% will be added to any past due utility balance not paid within 25 days of the bill date.

1 Bill Mailed Mailed

Edited Bill

Print Pending

Answered

Returned

Page 1 of 1    < Previous Bill    Next Bill >    Bill 1 of 49    Message Page

## Residential Smart \$aver®

### CFL – Bill Insert

Plant these bulbs around your house and watch the savings grow.



Get your FREE CFLs now. Simply call 800.943.7585 (select option 1) or visit us online at [duke-energy.com/GrowMySavings](http://duke-energy.com/GrowMySavings)



### We're putting a new twist on the old bulb.

Duke Energy wants you to think about energy savings in a whole new light. That's why we're giving away FREE CFL bulbs. They're more efficient than standard incandescent bulbs and last a lot longer, making these beautiful bulbs a perennial favorite.

**Compact Fluorescent Light (CFL) bulbs:**

- Use 75% less energy and last up to six times longer than incandescents
- Provide more than \$40 in savings over the lifetime of each CFL
- Produce about 75% less heat than standard bulbs, making them safer and less of a drain when cooling your house

Just call 800.943.7585 (select option 1) or visit [duke-energy.com/GrowMySavings](http://duke-energy.com/GrowMySavings) to get yours.\* Use the account number on your bill to make ordering even easier.

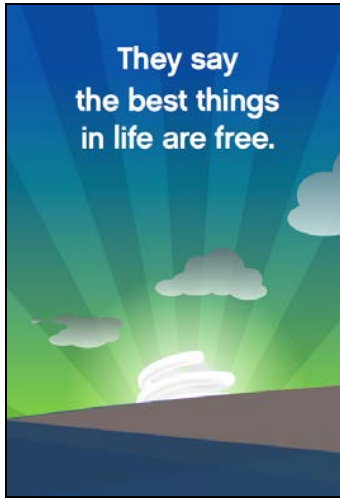


\*Previous participation in one of our light bulb programs may be reflected in the number of bulbs that you may be eligible to receive.

1011F

# Residential Smart \$aver®

## CFL – Direct Mail Campaign Targeting New Customers



Lighten your  
energy bill without  
dimming your lighting.

We'd like to help you wake up to more energy savings. We're offering FREE compact fluorescent light (CFL) bulbs to Duke Energy customers.

There's no comparison between CFLs and your standard incandescent bulbs. CFLs are 75% more efficient and last 8 times longer, meaning you'll save more money over time. Plus, CFLs are safe, emit the same light quality, and produce less heat than standard bulbs.

With free CFLs, you can save:

- 100% on the cost of the bulbs
- Up to \$90 or more per year in energy costs\*
- Up to \$600 in energy costs over the lifetime of these bulbs\*\*

Simply call or visit us online today to order yours—before they're gone.

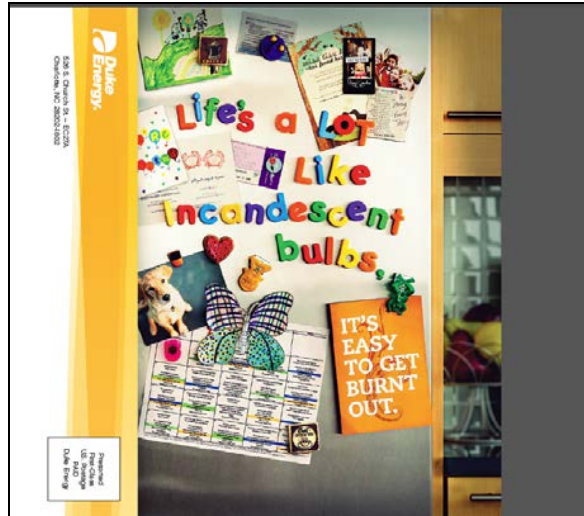
To get your FREE energy-saving light bulbs:\*\*  
Call: 1-800-943-7585 (Select Option 1)  
or  
Visit: [duke-energy.com/Free2Savings](http://duke-energy.com/Free2Savings)

We've provided your account number to make ordering even faster.

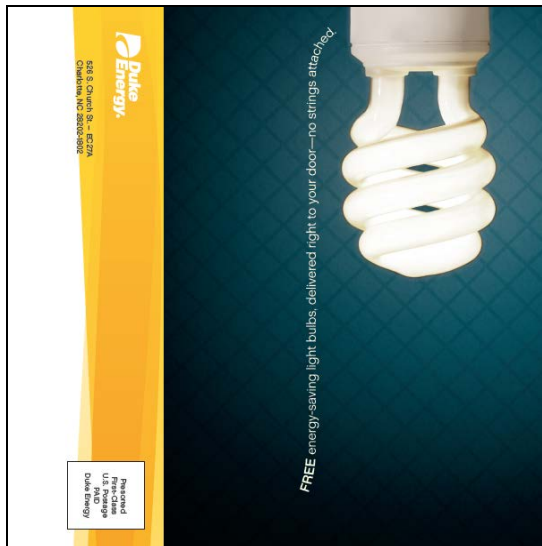
CFLs are a better option to save energy and to better look after your environment than standard incandescent light bulbs.

\* Based on ENERGY STAR (www.energystar.gov) estimates and the installation of 15 CFL bulbs.  
\*\* Savings is based on average participation in the energy efficiency program sponsored by Duke Energy. Please note CFLs are the maximum number that a household can own under this program.

**Duke Energy**



# Residential Smart \$aver®



**You could be saving \$90 a year on your energy bill with FREE CFLs!** 

November 7, 2012

«Recipient's Full Name»  
«Recipient's Company Name»  
«Street Address»  
«City, State ZIP»

Dear «Mr. / Ms. / Mrs. / Dr. Name»:

According to ENERGY STAR®, 89 percent of households replaced an incandescent light bulb with a CFL in 2011. Your household can join this group and enjoy the savings that CFLs offer by taking advantage of our FREE CFL offer. Join the millions of customers who took the first step in being more energy efficient.

**WHY YOU SHOULD ORDER TODAY**

- **Satisfaction with CFLs is no longer a concern.** National surveys find more than 80 percent of consumers are satisfied with CFL performance.\*\*
- **The savings are undeniable.** Each CFL bulb you install saves \$6 a year in energy costs over a traditional incandescent bulb. Install 15 bulbs and that's a savings of \$90 a year or \$600 over the lifetime of the bulbs.
- **This offer is FREE.** You can't get better than that.
- **Ordering is simple.** Just follow the steps to the right to see how many bulbs you qualify for. We'll process your request and send your bulbs to the above address in four to six weeks, if not sooner.

**GET THE MOST OUT OF YOUR NEW BULBS**  
Once you receive the bulbs, install them in the most frequently used areas of your home, like the kitchen, living room, family room and bedrooms. But don't wait for your old incandescent bulbs to burn out—install your CFLs immediately. Move your incandescent bulbs to the fixtures you use the least.


Supplies are limited, so contact us today. It only takes a few minutes. But the savings will last for years.


**GET YOUR FREE LIGHT BULBS**  
Two ways to request your bulbs:

1. **Call 800-943-7585:**

- Choose Option 1.
- Choose Option 1 to check for eligibility.
- Choose Option 1 to enter your account number.
- Enter «account number» followed by the # key. *(This is your Duke Energy account number.)*
- Follow the simple prompts to validate your address and order.

2. **Or visit [www.duke-energy.com/freenow](http://www.duke-energy.com/freenow)**



**Thank you for ordering FREE CFLs.**   
There is one more thing you need to do to save even more!

November 7, 2012

«Recipient's Full Name»  
«Recipient's Company Name»  
«Street Address»  
«City, State ZIP»

Dear «Mr. / Ms. / Mrs. / Dr. Name»:

According to ENERGY STAR®, 89 percent of households replaced an incandescent light bulb with a CFL in 2011. And your household was one of them. Congratulations for taking the first step in being more energy efficient. But did you know that you may still be eligible to receive more free bulbs?\*

**WHY YOU SHOULD ORDER THE MAXIMUM AMOUNT OF BULBS**

- **The average home can contain up to 30 light fixtures.** Get the maximum savings by ordering the maximum number of CFLs.
- **The savings are undeniable.** Each CFL bulb you install saves \$6 a year in energy costs over a traditional incandescent bulb. Install 15 bulbs and that's a savings of \$90 a year or \$600 over the lifetime of the bulbs.
- **This offer is FREE.** You can't get better than that.
- **Ordering is simple.** Just follow the steps to the right to see how many additional bulbs you qualify for. We'll process your request and send your bulbs to the above address in four to six weeks, if not sooner.

**GET THE MOST OUT OF YOUR NEW BULBS**  
Once you receive the bulbs, install them in the most frequently used areas of your home, like the kitchen, living room, family room and bedrooms. But don't wait for your old incandescent bulbs to burn out—install your CFLs immediately. Move your incandescent bulbs to the fixtures you use the least.


Supplies are limited, so contact us today. It only takes a few minutes. But the savings will last for years.

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- Follow the simple prompts to validate your address and order.

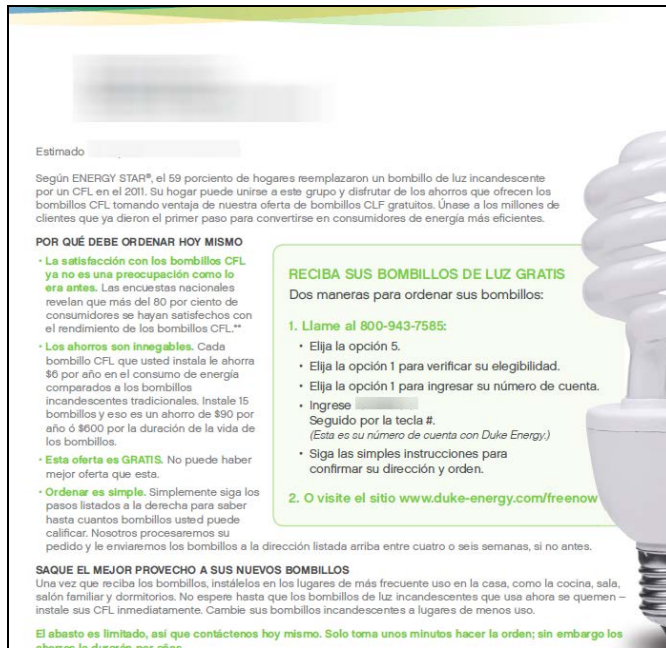
2. **Or visit [www.duke-energy.com/freenow](http://www.duke-energy.com/freenow)**





## Residential Smart \$aver®

### CFL– Direct Mail Campaign Targeting Spanish-Speaking Customers



Estimado [Redacted]

Según ENERGY STAR®, el 59 por ciento de hogares reemplazaron un bombillo de luz incandescente por un CFL en el 2011. Su hogar puede unirse a este grupo y disfrutar de los ahorros que ofrecen los bombillos CFL tomando ventaja de nuestra oferta de bombillos CFL gratuitos. Únase a los millones de clientes que ya dieron el primer paso para convertirse en consumidores de energía más eficientes.

**POR QUÉ DEBE ORDENAR HOY MISMO**

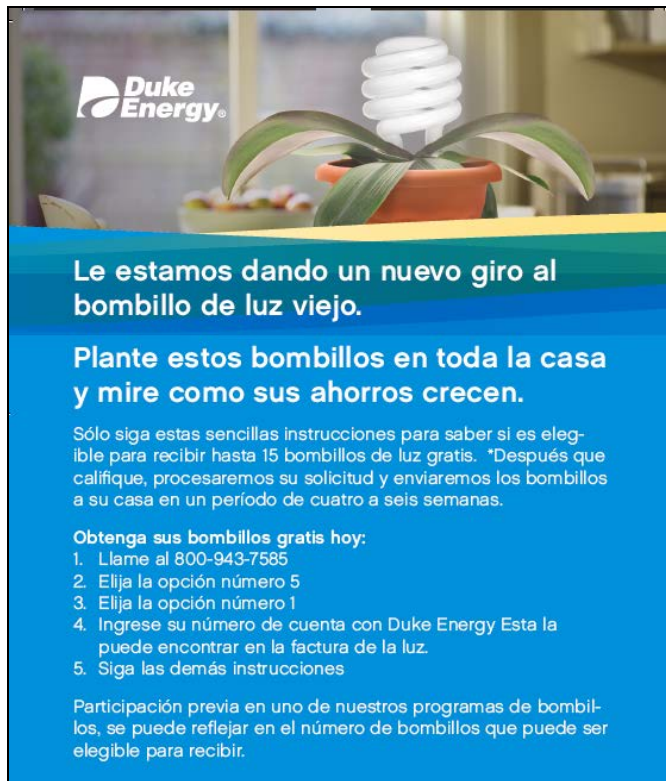

- **La satisfacción con los bombillos CFL ya no es una preocupación como lo era antes.** Las encuestas nacionales revelan que más del 80 por ciento de consumidores se hayan satisfechos con el rendimiento de los bombillos CFL.\*\*
- **Los ahorros son innegables.** Cada bombillo CFL que usted instala le ahorra \$6 por año en el consumo de energía comparados a los bombillos incandescentes tradicionales. Instale 15 bombillos y eso es un ahorro de \$90 por año ó \$600 por la duración de la vida de los bombillos.
- **Esta oferta es GRATIS.** No puede haber mejor oferta que esta.
- **Ordenar es simple.** Simplemente siga los pasos listados a la derecha para saber hasta cuantos bombillos usted puede calificar. Nosotros procesaremos su pedido y le enviaremos los bombillos a la dirección listada arriba entre cuatro o seis semanas, si no antes.


**SAQUE EL MEJOR PROVECHO A SUS NUEVOS BOMBILLOS**  
Una vez que reciba los bombillos, instálelos en los lugares de más frecuente uso en la casa, como la cocina, sala, salón familiar y dormitorios. No espere hasta que los bombillos de luz incandescentes que uso ahora se quemen – instale sus CFL inmediatamente. Cambie sus bombillos incandescentes a lugares de menos uso.

**El abasto es limitado, así que contáctenos hoy mismo. Solo toma unos minutos hacer la orden; sin embargo los**

**RECIBA SUS BOMBILLOS DE LUZ GRATIS**  
Dos maneras para ordenar sus bombillos:

- 1. Llame al 800-943-7585:**
  - Elija la opción 5.
  - Elija la opción 1 para verificar su elegibilidad.
  - Elija la opción 1 para ingresar su número de cuenta.
  - Ingrese [Redacted] seguido por la tecla #.  
(Esta es su número de cuenta con Duke Energy.)
  - Siga las simples instrucciones para confirmar su dirección y orden.
- 2. O visite el sitio [www.duke-energy.com/freenow](http://www.duke-energy.com/freenow)**





**Le estamos dando un nuevo giro al bombillo de luz viejo.**

**Plante estos bombillos en toda la casa y mire como sus ahorros crecen.**

Sólo siga estas sencillas instrucciones para saber si es elegible para recibir hasta 15 bombillos de luz gratis. \*Después que califique, procesaremos su solicitud y enviaremos los bombillos a su casa en un período de cuatro a seis semanas.

**Obtenga sus bombillos gratis hoy:**

1. Llame al 800-943-7585
2. Elija la opción número 5
3. Elija la opción número 1
4. Ingrese su número de cuenta con Duke Energy Esta la puede encontrar en la factura de la luz.
5. Siga las demás instrucciones

Participación previa en uno de nuestros programas de bombillos, se puede reflejar en el número de bombillos que puede ser elegible para recibir.

## Residential Smart \$aver®

### CFL – Newspaper Advertisements

**BUY NONE  
GET SOME  
FREE**

Want to save big now  
and save even bigger  
later? Great! Because  
Duke Energy is giving  
away FREE energy-  
efficient light bulbs to  
customers\*—no strings  
attached. Heck, we'll  
even deliver them  
for **FREE!**



So, how do you take  
advantage of this steal  
of a deal? It's easy.

Call 800.943.7585 (select option 1) or visit us  
online at [www.duke-energy.com/CFLcoupon](http://www.duke-energy.com/CFLcoupon)



\*Eligibility is based on previous participation in other Duke Energy energy efficiency programs.

## Residential Smart \$aver®

### CFL Property Manager Channel – State Landing Page Promotion

**Property Managers:  
Stand out from your competition.**  
Offer your residential tenants free energy saving bulbs.

learn more

1 2 3

The image features a green background with a white glow effect. On the left is a compact fluorescent bulb (CFL), and on the right are three standard incandescent bulbs. A green button with the text 'learn more' is positioned below the CFL. At the bottom right, there are three small, rounded square buttons labeled '1', '2', and '3'.

### CFL Property Manager Channel – Web Page

**Property Managers CFL Program**

Set Yourself Apart from the Competition with Duke Energy's Free Energy Efficient Bulbs

In today's competitive rental market, you need ways to set your community a step above your competition.

Duke Energy will help by providing you with energy efficient compact fluorescent bulbs (CFLs). They are perfect for permanent light fixtures in foyers, bedrooms and family areas. Changing the bulbs is easy and can be done on your regular maintenance schedule.

**Benefits to You**

- Upgrade your lighting for less. You only pay the shipping costs.
- Reduce maintenance costs and efforts. CFLs last 10 times longer than traditional bulbs.
- Improve tenants' satisfaction by helping them save energy and money. CFLs use 75% less energy.
- Attract and retain tenants by promoting your energy efficient lighting.

Contact us: [email](#) or 888-297-1671.

**Questions about the program?**  
Contact us: [email](#) or 888-297-1671.

**Get Started Now**  
**Program Forms:**

- [Application Form](#)
- [Application Instructions](#)
- [Contract](#)
- [CFL FAQs](#)

**Marketing Kit:** Templates to help you market the program to your residents.

- [Tenant Marketing Piece](#)  
[English](#) | [Espanol](#)
- [Tenant Leave Behind: Enjoy Your Savings](#)  
[English](#) | [Espanol](#)
- [CFL Safety and Fact Sheet](#)  
[English](#) | [Espanol](#)

The web page layout includes a header with the program name, a hero section with a yellow and blue background and an image of a CFL and three incandescent bulbs, and a main content area with text, a list of benefits, contact information, and a sidebar with links to program forms and marketing materials.

# Residential Smart Saver®

## CFL Property Manager Channel – Direct Mail Promotions



**Duke Energy.**

"We received over 35,600 free CFL bulbs, saving our residents up to 30% in energy costs. Plus, we've made a positive impact on our environment and in communities we serve. I strongly recommend this program as it truly offers ongoing savings."  
— Fred Klock, Vice High Campus

**Property Managers enjoy free CFLs.**  
Ongoing savings with this exclusive offer.

**In today's market, you need ways to set yourself above your competition.**  
Duke Energy can help by providing you with up to 12 FREE\* compact fluorescent bulbs (13w CFLs) per unit for your community.

**How you can benefit:**

- **Savings to Your Bottom Line** – CFLs last up to six times longer than traditional bulbs translating to less visits to replace incandescent bulbs. Changing the bulbs is easy and bulbs can be installed during regularly scheduled maintenance visits.
- **Increase Tenant Satisfaction** – On average, each CFL will save your tenants about \$40 in energy costs over the expected lifetime of each bulb. Install 12 bulbs and that's a savings of \$480\*\* over the lifetime of the bulbs!
- **Attract and Retain Tenants** – Promote your participation! Nearly 9 in 10 Americans would prefer to live in an eco-friendly space and more than half of those are willing to pay more in rent to do so.\*\*\*

Join hundreds of other property managers who have already received their FREE CFLs.

**Order Online:**  
Visit our Online Services:  
[duke-energy.com/property-mgr](http://duke-energy.com/property-mgr)

**By Phone:**  
Contact Customer Service:  
1-888-297-1671



**Duke Energy.**

**Property Managers enjoy free CFLs**  
Ongoing savings with this exclusive offer.

**In today's market, you need ways to set yourself above your competition.**  
Duke Energy can help by providing you with up to 12 FREE\* compact fluorescent bulbs (13w CFLs) per unit for your community.

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- **Attract and Retain Tenants** – Promote your participation! Nearly 9 in 10 Americans would prefer to live in an eco-friendly space and more than half of those are willing to pay more in rent to do so.\*\*\*

**Order online: [duke-energy.com/property-mgr](http://duke-energy.com/property-mgr) or by phone: 1-888-297-1671**

\*Bulbs are free. You pay only the shipping costs. \*\*Based on \$40 savings per bulb over the expected lifetime of bulb. Source: [www.energystar.gov](http://www.energystar.gov). \*\*\*According to 2010 Best.com national survey.

## Residential Smart \$aver®

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### Residential HVAC – Online State Landing Page Promotions



**Smart \$aver®**  
**Save energy and money**  
Learn more. 



**Control your energy costs and earn up to \$550.**  
Save BIG with Smart Saver® Incentives. [Learn more](#)

1 2 3 4

## Residential Smart \$aver®

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### Residential HVAC – Online Services Promotions



**Smart \$aver®**

Earn a rebate  
and reduce  
your energy bill.

[learn more](#)



**Smart \$aver®**

Earn a rebate  
and reduce  
your energy bill.

[learn more](#)



**Smart \$aver®**


Earn a rebate  
and reduce  
your energy bill.

[learn more](#)

# Residential Smart Saver®

## Residential HVAC – Email Message

This message contains graphics. If you do not see the graphics, [click here to view](#).



**Control your energy costs and earn \$50!** [Get Started](#)

Duke Energy's Smart Saver® program can help you **save money**, **improve comfort** and **become more energy efficient**. We offer cash incentives to qualified customers who take steps to make their homes more efficient. Incentives are available for qualifying work performed since Aug. 1, 2012.

**Act now. Earn \$50. Save energy.\***


Be cool and comfortable. Complete a Smart Saver **Health Check** to get the most out of your cooling system.

**Health Check Highlights:**

- Goes beyond an average tune-up to **optimize your system**.
- Performed by local **industry-certified** and **program-trained** technicians.
- **Specialized equipment** analyzes HVAC system and identifies any issues.

\*Service costs will vary depending on your selected contractor. Incentive is paid upon Health Check completion. See [website](#) to learn more.

[Get Started](#)







**Introducing Insulate and Seal**  
Earn up to **\$425** for making your home more energy efficient.

Is your home drafty? Do you feel uneven temperatures when you go from room to room? Does your HVAC system run more than you think it should? If you answered "yes" to any of these questions, then you should check out **Insulate and Seal** – a recent addition to our **Smart Saver®** portfolio of energy efficiency services.

**You can earn up to \$425 in rebates for making your home more comfortable.**

- Increase the effectiveness of your attic insulation.
- Seal your home's "envelope."
- Reduce air leakage in your ductwork.
- Insulate your ductwork.

**Getting started is easy!**

 Find a participating BPI-certified contractor* on our website.	 Speak with the contractor about program details, pricing† and scheduling.	 Contractor performs work on your home.	 You receive a rebate‡ from Duke Energy.
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[Get Started](#)

\*Building Performance Institute (BPI) is the nation's premier standards development and credentialing organization for residential energy efficiency retrofit work.  
†Service costs will vary depending on the contractor you select.  
‡Incentive is paid upon completion of efficiency upgrades. See website to learn more.

**Duke Energy Storm on Twitter**  
Follow us for severe weather tips and restoration updates.

**Duke Energy Storm on Facebook**  
Get the latest storm, outage and safety information in your news feed.

**youility™ on Facebook**  
Discover new ways to save energy and money at home.

Share to social:   

[Update Your Subscriptions](#) | [Unsubscribe](#) | [Privacy Policy](#)  
[www.duke-energy.com](http://www.duke-energy.com)  
Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

# Residential Smart \$aver®

## Residential HVAC – Direct Mail Promotions

**How to schedule a Health Check**

Go to [Duke-Energy.com/BeCool](http://Duke-Energy.com/BeCool) and select **Health Check**.

Choose a Participating Contractor from our online database.

Call and schedule an appointment with the Participating Contractor.

**Earn \$50\***

\*Incentive is paid upon Health Check completion.

**Take steps to control your energy costs and earn up to \$625!**

Introducing **Smart \$aver® Incentives**. Earn cash incentives for making your home more energy efficient.

[Duke-Energy.com/BeCool](http://Duke-Energy.com/BeCool)

**SMART \$AVER INCENTIVE PROGRAM**

**Smart \$aver® Incentives**

Improve your home's efficiency without breaking the bank.

Saving energy at home is easier than you think. Duke Energy can help with cash incentives for projects that will make your home more comfortable – and save you energy and money for years to come.

**What are Smart \$aver Incentives?**

Smart \$aver Incentives are cash incentives offered to Duke Energy customers who take steps to make their homes more energy efficient.

**How does the program work?**

Choose one or more of the available incentives. Then, select from a network of certified, participating contractors to complete the work. Your contractor will also help you receive your Smart \$aver incentive from Duke Energy.

Smart \$aver Program	Amount
HVAC Install: New Heat Pump or Air Conditioner (14 SEER or greater)*	\$200
HVAC Install: New Geothermal Heat Pump (D55 EER or greater)*	\$200
Health Check: Heat Pump or Air Conditioner tune-up	\$50
Insulate & Seal: Attic Insulation and Air Sealing	\$280
Insulate & Seal: Duct Sealing	\$100
Insulate & Seal: Duct Insulation	\$75

\*EOM fan must be included on the indoor unit.

**Complete a Health Check and you could earn a \$50 incentive!**

Are you getting the most out of your heating and cooling system? Find out with a Smart \$aver Health Check.

**Health Check Highlights:**

- Goes beyond an average tune-up to optimize your system.
- Performed by local industry-certified and program-trained technicians.
- Specialized equipment analyzes HVAC system and identifies any issues.

Find a Participating Contractor by visiting [Duke-Energy.com/BeCool](http://Duke-Energy.com/BeCool). Service costs will vary depending on your selected contractor.

For additional questions, call 888-765-6206.



## Residential Smart \$aver®

### Control your energy costs and earn up to \$625!

Duke Energy's **Smart \$aver**® program can help you save money, improve comfort and become more energy efficient.

Learn more at:  
[Duke-Energy.com/Improve](http://Duke-Energy.com/Improve)



Duke Energy  
EC2ZA | 526 S. Church St.  
Charlotte, NC 28202

First Class Mail  
U.S. Postage  
**PAID**  
Duke Energy

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Be cool and comfortable. Complete a Smart \$aver **Health Check** to get the most out of your cooling system.

#### Health Check Highlights:

- Goes beyond an average tune-up to **optimize your system**.
- Performed by local **industry-certified** and **program-trained** technicians.
- **Specialized equipment** analyzes HVAC system and identifies any issues.

Learn more: [Duke-Energy.com/Improve](http://Duke-Energy.com/Improve)

\* Service costs will vary depending on your selected contractor. Incentive is paid upon Health Check completion. See website or call 866-785-6209 to learn more.

## Smart Energy Now

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### A. Description

Duke Energy Carolinas, LLC (the "Company") received regulatory approval from the North Carolina Utilities Commission on February 14, 2011 for the Smart Energy Now® pilot program ("Smart Energy Now" or "Program"). The Program is designed to create energy and capacity reductions through behavioral modifications by leveraging the community's commitment to create an environmentally sustainable urban core. The Program targets both occupants and managers of commercial buildings by providing them with more detailed information on the building's energy usage and providing the community's aggregate energy usage data coupled with a customized employee and tenant engagement plan to reduce wasted energy.

### Audience

This Program targets customers occupying commercial office buildings in community settings. The target audience is approximately 65 commercial office buildings (buildings with a minimum of 10,000 square feet) within Charlotte city center (as defined by the I-277 loop – see diagram to the right). Building owners, facility managers and building occupants are part of the Program, each playing an important role in achieving energy savings with the commercial office setting.

### B & C. Impacts, Participants and Expenses

<i>\$ in millions</i>	Vintage 3 As Filed	Vintage 3 YTD Dec 31, 2012	% of Target
<b>South Carolina Nominal Avoided Cost</b>		<b>\$1.1</b>	
<b>Program Cost</b>		<b>\$1.1</b>	
<b>MW</b>		<b>0.8</b>	
<b>MWH</b>		<b>4,127.2</b>	
<b>Units<sup>3</sup></b>		<b>34</b>	

**Notes on Table:**  
 1) Numbers rounded.  
 2) There is no as filed comparison for Smart Energy Now because it was not included in the original filing.  
 3) Units represent the number of customer accounts enrolled.

### D. Qualitative Analysis

#### Highlights

In 2012, the Program team focused on executing on the community engagement strategy and leveraging its learnings to date as well as the input of experts in the field. This meant that the Program was primarily focused on training occupants and property managers from each of the buildings, building relationships with tenant companies and utilizing relationships with facilities personnel in each building. This strategy included both high level awareness activities in the community as well as targeted activities for each of the different buildings.

#### Key aspects of the project:

##### Kiosk/Content Design:

A few minor changes have been made to content shown on the kiosk. Several building owners have requested the option to display their building's individual usage on the kiosk. This option is available and

## Smart Energy Now

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several buildings have decided to pursue this option. By displaying this information, tenants will see how their building relates to the community and track progress of their building.

Midway through 2012 and prior to the Democratic National Convention in Charlotte, the team elected to move forward with changes to the kiosk and website that would better engage users and better align the Smart Energy Now and Envision Charlotte brands. This included a full design overhaul, a rotating attract loop with and program information, a design that helped to increase the speed of the touch screen and interactive energy saving information. The changes to the website mirrored the kiosk in design along with better functionality and information for people, groups and companies to “get involved” through launching campaigns or making “pledges to save” on the site.

### **Normalization of Data:**

The Company and Performance System Development (“PSD”) completed the work on the Compass Tool. With the completion of the Compass Tool, facility engineers and property managers can log in and see how their building is performing and use the real time 15-minute interval data to make informed decisions on how to best operate their building.

### **Customer/Community Outreach:**

During the first half of 2012, the majority of participating buildings received training on the pilot’s energy champions program. The training includes an overview of the Program, information about actions that can be taken in the office space to increase energy efficiency and ending with a brainstorming session on what that specific building could do to kick off an energy saving campaign. Over 800 individuals/occupants located in the buildings participating in the Program have attended the training. Upon completion of the energy champion training in the majority of buildings, the Program refocused its efforts on building relationships with each of the tenants. The Program team realized that in order to drive change, the messaging needed to come with support from the leadership of each company, so the Smart Energy Now® Team developed the Declaration of Change to get commitment from the leadership of Uptown companies. This has created a top-down approach to compliment the bottom-up approach of the energy champion training. The Declaration of Change campaign is currently in the process of gaining commitment from each company located in Uptown Charlotte to support Smart Energy Now®, promote it to its employees and promote energy conservation in the workplace. The new initiative has had great success and received 40 signed declarations by the end of 2012. This effort will continue through the end of the Program. In addition to the energy champion training, the Smart Energy Now Team has conducted outreach at tenant engagement breakfasts hosted by the property management companies. The Smart Energy Now Team presented program information, energy saving information, details on what companies across Uptown Charlotte are accomplishing through energy saving campaigns and how their company, floor or department could get involved.

In support of its Smart Energy Now Program, the Company has formed strategic partnerships with the US Green Buildings Council (USGBC) and the International Facility Managers Association (IFMA) to continue offering quarterly forums, or Town Hall Meetings. These gatherings are a way for Facility Managers to share best practices and learn about new trends in the industry from experts brought in specifically for the Program. The Smart Energy Now team launched a building recognition program in the last quarter of the year. This component of the Program recognizes the top performing and top saving buildings to recognize the most dedicated facility engineers in the city. The Smart Energy Now team will utilize the data captured in the Compass Tool to determine those recognized. The recognition event is scheduled for March 2013.

## Smart Energy Now

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### **Issues:**

There are no major issues to report.

### **Potential Changes:**

No significant changes are planned at this time.

### **E. Marketing Strategy**

The Smart Energy Now team leverages many communication channels to engage tenants, build program awareness and promote energy saving tips and other pertinent information on energy efficient behavior and sustainability. The Program has a communications calendar that lays out bi-weekly emails, bi-weekly blog posts, quarterly newsletters and almost daily tweets. The Smart Energy Now team also leverages social media to engage the Program audience via LinkedIn. Smart Energy Now has 750 followers on Twitter, 430 members in the LinkedIn Group and 700 subscribers to our email list to date.

### **F. Evaluation, Measurement and Verification**

TecMarket Works ("TMW") has been evaluating the Program since its launch. The evaluation team meets with the program managers for regular update meetings that include the review and modification of the evaluation plan as Program activities evolve.

For the process evaluation, TMW has been conducting interviews with the program manager and other member of the Program team. In addition, the evaluation team conducted an onsite occupant behavior baseline survey in the fall of 2011.

For the impact evaluation report, the original timeline projected the full report presenting both the process and impact evaluation results would be final in June 2013. However, to ensure the evaluation reflects the Program performance for the three-year Program term, TMW recommends moving the completion date for the impact evaluation report to Q1 of 2014.

For the impact analysis, TMW has been monitoring participants in order to select the sample buildings for the impact evaluation. The team has also constructed and implemented a Building Operators Baseline Practices Survey, conducted a review of the Building Operator Training Sessions and designed and reviewed the implementation of the Facility Manager Actions feature available the Compass Tool.