

Duke Energy Carolinas, LLC
 Vintage 2017 Actual for January 1, 2017 to December 31, 2017
 Docket Number E-7, Sub 1230
 Load Impacts and Estimated Revenue Requirements, excluding Lost Revenue by Program

	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	A System NPV of Avoided Cost	B System Cost	C = (A-B) *11.5% Earned Utility Incentive	D= B+C System Cost Plus Incentive	E NC Retail kWh Sales Allocation Factor (Miller Exhibit 5 pg. 1)	NC Residential Revenue Requirement D * E	
Residential Programs									
EE Programs									
1 Appliance Recycling Program	-	-	\$ -	\$ 5,307	\$ (610)	\$ 4,697	72.8087506%	\$ 3,420	
2 Energy Efficiency Education	1,393	5,932,086	3,597,724	2,077,611	174,813	2,252,424	72.8087506%	1,639,962	
3 Energy Efficient Appliances and Devices	24,605	137,909,103	105,352,687	30,340,728	8,626,375	38,967,103	72.8087506%	28,371,461	
4 Residential – Smart Saver Energy Efficiency Program	1,850	6,712,977	7,287,263	7,403,327	(13,347)	7,389,980	72.8087506%	5,380,552	
5 Income Qualified Energy Efficiency and Weatherization Assistance	771	5,341,624	3,185,867	5,505,992	-	5,505,992	72.8087506%	4,008,844	
6 Multi-Family Energy Efficiency	2,056	19,038,529	13,539,656	3,168,422	1,192,692	4,361,114	72.8087506%	3,175,272	
7 Energy Assessments	1,040	7,720,549	6,602,773	2,909,098	424,773	3,333,871	72.8087506%	2,427,350	
8 Subtotal	31,715	182,654,868	\$ 139,565,970	\$ 51,410,486	\$ 10,404,695	\$ 61,815,181		\$ 45,006,861	
9 My Home Energy Report (1)	79,070	311,368,855	21,728,369	13,812,250	910,354	14,722,603	72.8087506%	10,719,344	
10 Total for Residential Energy Efficiency Programs	110,786	494,023,724	\$ 161,294,339	\$ 65,222,736	\$ 11,315,049	\$ 76,537,785		\$ 55,726,205	
NC Residential Peak Demand Allocation Factor (Miller Exhibit 5 pg. 1)									
								D11* E11	
11 SubTotal DSM Programs (2)	846,941	2,943,906	105,087,510	\$ 29,822,652	\$ 8,655,459	\$ 38,478,111	33.8075104%	\$ 13,008,491	
12 Total DSM Programs									13,008,491
13 Total Residential Revenue Requirement									\$ 68,734,696
Non-Residential Programs									
EE Programs									
14 Non Residential Smart Saver Custom Energy Assessments	1,627	15,791,732	\$ 10,272,302	\$ 2,139,875	\$ 935,229	\$ 3,075,104	72.8087506%	\$ 2,238,945	
15 Non Residential Smart Saver Custom	6,010	40,609,855	34,693,083	7,304,838	3,149,648	10,454,486	72.8087506%	7,611,781	
16 Non Residential Smart Saver Energy Efficient Food Service Products	112	1,383,542	959,251	306,488	75,068	381,556	72.8087506%	277,806	
17 Non Residential Smart Saver Energy Efficient HVAC Products	894	2,954,877	2,958,336	1,560,769	160,720	1,721,489	72.8087506%	1,253,395	
18 Non Residential Smart Saver Energy Efficient Lighting Products	47,322	270,572,885	240,054,511	66,689,770	19,936,945	86,626,715	72.8087506%	63,071,829	
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	687	4,806,849	3,070,044	528,937	292,227	821,164	72.8087506%	597,879	
20 Non Residential Smart Saver Energy Efficient IT Products	-	2,945	523	61,215	(6,980)	54,235	72.8087506%	39,488	
21 Non Residential Smart Saver Energy Efficient Process Equipment Products	99	651,289	530,295	162,413	42,306	204,719	72.8087506%	149,054	
22 Non Residential Smart Saver Performance Incentive	3	12,373	8,958	320,559	(35,834)	284,725	72.8087506%	207,305	
23 Small Business Energy Saver	17,263	90,297,362	63,169,894	17,350,972	5,269,176	22,620,148	72.8087506%	16,469,447	
24 Smart Energy in Offices	2,138	10,272,154	1,067,480	891,010	20,294	911,304	72.8087506%	663,509	
25 Business Energy Report	3	42,398	696	126,680	-	126,680	72.8087506%	92,234	
26 Sub-Total for Non-Residential Energy Efficiency Programs	76,158	437,398,260	\$ 356,785,373	\$ 97,443,527	\$ 29,838,800	\$ 127,282,328		\$ 92,672,672	
27 Total for Non-Residential Energy Efficiency Programs									\$ 92,672,672
NC Non-Residential Peak Demand Allocation Factor (Miller Exhibit 5 pg. 1)									
								D24*E24	
28 Total DSM Programs(2)	846,941	2,943,906	\$ 105,087,510	\$ 29,822,652	\$ 8,655,459	\$ 38,478,111	40.0747013%	\$ 15,419,988	
29 Total Non-Residential DSM Programs									15,419,988
30 Total Non-Residential Revenue Requirement									\$ 108,092,661
Total DSM Program Breakdown									
31 Power Manager (Residential)	501,118	-	\$ 61,074,105	\$ 14,021,500	\$ 5,411,050	\$ 19,432,549			
32 EnergyWise for Business (Non-Residential)	5,453	2,943,906	\$ 2,530,761	\$ 2,484,618	\$ 5,306	\$ 2,489,924			
33 Power Share CallOption (Non-Residential)	-	-	\$ -	\$ -	\$ -	\$ -			
34 Power Share (Non-Residential)	340,369	-	\$ 41,482,644	\$ 13,316,535	\$ 3,239,103	\$ 16,555,638			
35 Total DSM	846,941	2,943,906	\$ 105,087,510	\$ 29,822,652	\$ 8,655,459	\$ 38,478,111	73.8822117%	\$ 28,428,479	

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintage
 (2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas
 Evans Exhibit 1
 Vintage 2018 True Up - January 1, 2018 to December 31, 2018
 Docket Number E-7, Sub 1230
 Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D =(A-B)*C	E =(B+D)	F	G	H		
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	System Revenue Requirement	NC Retail kWh Sales Allocation Factor	NC Allocation Factor (Z)	NC Residential Revenue Requirement
Residential Programs										
EE Programs										
1 Energy Efficiency Education	967	5,530,707	\$ 2,863,507	\$ 1,992,260	11.5%	\$ 100,193	\$ 2,092,453	72.7130507%		E1 * F1 \$ 1,521,487
2 Energy Efficient Appliances and Devices	32,802	195,213,017	\$ 135,857,936	\$ 42,687,244	11.5%	\$ 10,714,630	\$ 53,401,873	72.7130507%		E2 * F2 \$ 38,830,131
3 HVAC Energy Efficiency	1,640	6,367,174	\$ 7,088,531	\$ 6,955,146	11.5%	\$ 15,339	\$ 6,970,485	72.7130507%		E3 * F3 \$ 5,068,453
4 Income Qualified Energy Efficiency and Weatherization Assistance	904	6,973,243	\$ 4,315,688	\$ 6,490,735	0.0%	\$ -	\$ 6,490,735	72.7130507%		E4 * F4 \$ 4,719,611
5 Multi-Family Energy Efficiency	2,303	21,288,910	\$ 13,857,877	\$ 3,604,921	11.5%	\$ 1,179,090	\$ 4,784,011	72.7130507%		E5 * F5 \$ 3,478,601
6 Energy Assessments	929	7,716,668	\$ 5,756,902	\$ 2,836,229	11.5%	\$ 335,877	\$ 3,172,106	72.7130507%		E6 * F6 \$ 2,306,535
7 Total for Residential Conservation Programs	39,544	243,089,719	\$ 169,740,443	\$ 64,566,534		\$ 12,345,130	\$ 76,911,664			\$ 55,924,818
8 My Home Energy Report (1)	95,887	344,759,844	\$ 22,684,688	\$ 12,765,286	11.5%	\$ 1,140,731	\$ 13,906,017	72.7130507%		E8 * F8 \$ 10,111,489
9 Total Residential Conservation and Behavioral Programs	135,432	587,849,563	\$ 192,425,131	\$ 77,331,820		\$ 13,485,861	\$ 90,817,681			\$ 66,036,307
NC Residential Peak Demand Allocation Factor										
10 PowerManager	533,506	-	\$ 61,924,152	\$ 14,423,610	11.5%	\$ 5,462,562	\$ 19,886,172	73.6287551%	43.675154%	(E10+E26) *F10 *G10 \$ 12,360,454
11 Total Residential	668,938	587,849,563	\$ 254,349,283	\$ 91,755,430		\$ 18,948,423	\$ 110,703,853			\$ 78,396,761
Non-Residential Programs										
EE Programs										
12 Non Residential Smart Saver Custom Technical Assessments	13	83,588	\$ 67,306	\$ 407,293	11.5%	\$ (39,099)	\$ 368,195	72.7130507%		E12 * F12 \$ 267,726
13 Non Residential Smart Saver Custom	4,054	30,333,040	\$ 23,322,046	\$ 6,068,902	11.5%	\$ 1,984,112	\$ 8,053,013	72.7130507%		E13 * F13 \$ 5,855,592
14 Non Residential Smart Saver Energy Efficient Food Service Products	59	741,466	\$ 431,679	\$ 235,605	11.5%	\$ 22,549	\$ 258,153	72.7130507%		E14 * F14 \$ 187,711
15 Non Residential Smart Saver Energy Efficient HVAC Products	893	2,908,386	\$ 2,810,168	\$ 1,620,748	11.5%	\$ 136,783	\$ 1,757,531	72.7130507%		E16 * F16 \$ 1,277,955
16 Non Residential Smart Saver Energy Efficient Lighting Products	31,556	178,171,791	\$ 146,534,847	\$ 25,872,380	11.5%	\$ 13,876,184	\$ 39,748,564	72.7130507%		E17 * F17 \$ 28,902,393
17 Non Residential Energy Efficient Pumps and Drives Products	421	2,669,016	\$ 1,617,749	\$ 277,785	11.5%	\$ 154,096	\$ 431,881	72.7130507%		E18 * F18 \$ 314,034
18 Non Residential Energy Efficient ITEE	-	17,639	\$ 3,025	\$ 36,875	11.5%	\$ (3,893)	\$ 32,982	72.7130507%		E19 * F19 \$ 23,982
19 Non Residential Energy Efficient Process Equipment Products	75	331,222	\$ 226,725	\$ 67,509	11.5%	\$ 18,310	\$ 85,819	72.7130507%		E20 * F20 \$ 62,402
20 Non Residential Smart Saver Performance Incentive	168	3,271,186	\$ 1,671,793	\$ 479,610	11.5%	\$ 137,101	\$ 616,711	72.7130507%		E21 * F21 \$ 448,429
21 Small Business Energy Saver	13,374	76,696,523	\$ 46,832,942	\$ 15,977,993	11.5%	\$ 3,548,319	\$ 19,526,312	72.7130507%		E22 * F22 \$ 14,198,177
22 Smart Energy in Offices	310	1,488,592	\$ 143,285	\$ 219,748	11.5%	\$ (8,793)	\$ 210,954	72.7130507%		E23 * F23 \$ 153,391
23 Total for Non-Residential Conservation Programs	50,922	296,712,448	\$ 223,661,565	\$ 51,264,448		\$ 19,825,668	\$ 71,090,116			\$ 51,691,792
NC Non-Residential Peak Demand Allocation Factor										
24 EnergyWise for Business	7,999	2,599,904	\$ 2,279,967	\$ 3,062,816	11.5%	\$ (90,028)	\$ 2,972,789			
25 PowerShare	332,631	-	\$ 36,012,817	\$ 12,922,977	11.5%	\$ 2,655,332	\$ 15,578,309			
26 Total for Non-Residential DSM Programs	340,629	2,599,904	\$ 38,292,784	\$ 15,985,794		\$ 2,565,304	\$ 18,551,097	73.6287551%	56.324846%	(E10+E26) *F26 *G26 \$ 15,940,429
27 Total Non Residential	391,552	299,312,352	\$ 261,954,349	\$ 67,250,242		\$ 22,390,972	\$ 89,641,214			\$ 67,632,221
28 Total All Programs	1,060,489	887,161,915	\$ 516,303,632	\$ 159,005,671		\$ 41,339,396	\$ 200,345,067			\$ 146,028,982

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages
 (2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas
 Evans Exhibit 1
 Vintage 2019 True Up - January 1, 2019 to December 31, 2019
 Docket Number E-7, Sub 1230
 Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H		
				=(A-B)*C	=(B+D)					
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	System Revenue Requirement	NC Retail kWh Sales Allocation Factor	NC Allocation Factor (2)	NC Residential Revenue Requirement
Residential Programs										
EE Programs										
1 Energy Efficiency Education	841	6,713,787	\$ 2,519,645	\$ 1,684,083	11.5%	\$ 96,090	\$ 1,780,173	73.0903918%		E1 * F1 \$ 1,301,135
2 Energy Efficient Appliances and Devices	31,803	187,351,705	\$ 102,051,327	\$ 41,380,987	11.5%	\$ 6,977,089	\$ 48,358,076	73.0903918%		E2 * F2 \$ 35,345,107
3 HVAC Energy Efficiency	2,029	7,329,114	\$ 7,079,940	\$ 7,400,669	11.5%	\$ (36,884)	\$ 7,363,786	73.0903918%		E3 * F3 \$ 5,382,220
4 Income Qualified Energy Efficiency and Weatherization Assistance	1,105	9,029,752	\$ 3,648,597	\$ 7,342,133	0.0%	\$ -	\$ 7,342,133	73.0903918%		E4 * F4 \$ 5,366,394
5 Multi-Family Energy Efficiency	2,649	24,086,174	\$ 11,891,700	\$ 3,680,155	11.5%	\$ 944,328	\$ 4,624,483	73.0903918%		E5 * F5 \$ 3,380,053
6 Energy Assessments	946	7,886,916	\$ 4,413,585	\$ 3,186,888	11.5%	\$ 141,070	\$ 3,327,958	73.0903918%		E6 * F6 \$ 2,432,418
7 Total for Residential Conservation Programs	39,373	242,397,448	\$ 131,604,793	\$ 64,674,916		\$ 8,121,693	\$ 72,796,609			\$ 53,207,327
8 My Home Energy Report (1)	91,387	328,439,103	\$ 23,361,954	\$ 10,555,159	11.5%	\$ 1,472,781	\$ 12,027,941	73.0903918%		E8 * F8 \$ 8,791,269
9 Total Residential Conservation and Behavioral Programs	130,760	570,836,550	\$ 154,966,748	\$ 75,230,075		\$ 9,594,474	\$ 84,824,549			\$ 61,998,596
NC Residential Peak Demand Allocation Factor										
10 PowerManager	568,235	-	\$ 69,783,157	\$ 13,383,639	11.5%	\$ 6,485,945	\$ 19,869,583	74.2414264%	45.955615%	(E10+E26) *F10 *G10 \$ 13,581,236
11 Total Residential	698,996	570,836,550	\$ 224,749,905	\$ 88,613,714		\$ 16,080,419	\$ 104,694,133			\$ 75,579,832
Non-Residential Programs										
EE Programs										
12 Non Residential Smart Saver Custom Technical Assessments	148	1,930,762	\$ 691,285	\$ 295,925	11.5%	\$ 45,466	\$ 341,391	73.0903918%		E12 * F12 \$ 249,524
13 Non Residential Smart Saver Custom	10,109	52,522,612	\$ 35,884,367	\$ 8,871,440	11.5%	\$ 3,106,487	\$ 11,977,927	73.0903918%		E13 * F13 \$ 8,754,714
14 Non Residential Smart Saver Energy Efficient Food Service Products	76	870,041	\$ 364,227	\$ 339,904	11.5%	\$ 2,797	\$ 342,701	73.0903918%		E14 * F14 \$ 250,482
15 Non Residential Smart Saver Energy Efficient HVAC Products	1,367	5,950,986	\$ 4,481,911	\$ 2,207,760	11.5%	\$ 261,527	\$ 2,469,287	73.0903918%		E16 * F16 \$ 1,804,812
16 Non Residential Smart Saver Energy Efficient Lighting Products	28,280	149,658,444	\$ 97,967,602	\$ 20,829,118	11.5%	\$ 8,870,926	\$ 29,700,044	73.0903918%		E17 * F17 \$ 21,707,879
17 Non Residential Energy Efficient Pumps and Drives Products	166	1,043,899	\$ 510,415	\$ 189,123	11.5%	\$ 36,949	\$ 226,072	73.0903918%		E18 * F18 \$ 165,237
18 Non Residential Energy Efficient ITEE	-	8,442	\$ 1,038	\$ 44,323	11.5%	\$ (4,978)	\$ 39,345	73.0903918%		E19 * F19 \$ 28,758
19 Non Residential Energy Efficient Process Equipment Products	84	540,487	\$ 310,293	\$ 119,811	11.5%	\$ 21,905	\$ 141,717	73.0903918%		E20 * F20 \$ 103,581
20 Non Residential Smart Saver Performance Incentive	391	4,545,995	\$ 2,238,186	\$ 784,949	11.5%	\$ 167,122	\$ 952,072	73.0903918%		E21 * F21 \$ 695,873
21 Small Business Energy Saver	9,196	53,674,194	\$ 25,661,729	\$ 11,418,264	11.5%	\$ 1,637,999	\$ 13,056,262	73.0903918%		E22 * F22 \$ 9,542,873
22 Smart Energy in Offices	-	-	\$ -	\$ -	11.5%	\$ -	\$ -	73.0903918%		E23 * F23 \$ -
23 Total for Non-Residential Conservation Programs	49,817	270,745,861	\$ 168,111,054	\$ 45,100,618		\$ 14,146,200	\$ 59,246,818			\$ 43,303,733
NC Non-Residential Peak Demand Allocation Factor										
24 EnergyWise for Business	11,598	2,704,118	\$ 2,728,428	\$ 3,686,451	11.5%	\$ (110,173)	\$ 3,576,278			
25 PowerShare	342,590	-	\$ 42,072,382	\$ 13,019,606	11.5%	\$ 3,341,069	\$ 16,360,675			
26 Total for Non-Residential DSM Programs	354,188	2,704,118	\$ 44,800,810	\$ 16,706,057		\$ 3,230,897	\$ 19,936,953	74.2414264%	54.044385%	(E10+E26) *F26 *G26 \$ 15,971,705
27 Total Non Residential	404,005	273,449,978	\$ 212,911,864	\$ 61,806,674		\$ 17,377,097	\$ 79,183,771			\$ 59,275,438
28 Total All Programs	1,103,001	844,286,529	\$ 437,661,769	\$ 150,420,388		\$ 33,457,516	\$ 183,877,904			\$ 134,855,270

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages
 (2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Carolinas
Evans Exhibit 1
Vintage 2020 Estimate - January 1, 2021 to December 31, 2021
Docket Number E-7, Sub 1230
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D =(A-B)*C	E =(B+D)	F	G	H				
	System kW Reduction - Summer Peak	System kW Reduction - Winter Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	System Revenue Requirement	NC Retail kWh Sales Allocation Factor	NC Allocation Factor (2)	NC Residential Revenue Requirement	
Residential Programs												
EE Programs												
1 Energy Efficiency Education Program for Schools	997	1,407	7,951,567	\$ 3,022,045	\$ 2,315,055	11.5%	\$ 81,304	\$ 2,396,358	73.0903918%		E2 * F2 \$ 1,751,508	
2 Energy Efficient Appliances and Devices	9,790	5,988	56,621,851	\$ 26,094,584	\$ 10,615,734	11.5%	\$ 1,780,068	\$ 12,395,802	73.0903918%		E3 * F3 \$ 9,060,140	
3 HVAC Energy Efficiency	1,347	1,284	5,570,374	\$ 4,513,202	\$ 5,936,054	11.5%	\$ (163,628)	\$ 5,772,426	73.0903918%		E4 * F4 \$ 4,219,089	
4 Income Qualified Energy Efficiency and Weatherization Assistance	1,658	1,814	9,167,483	\$ 5,297,222	\$ 8,077,022	0.0%	\$ -	\$ 8,077,022	73.0903918%		E5 * F5 \$ 5,903,527	
5 Multi-Family Energy Efficiency	2,983	4,947	28,264,645	\$ 14,210,714	\$ 4,853,158	11.5%	\$ 1,076,119	\$ 5,929,277	73.0903918%		E6 * F6 \$ 4,333,732	
6 Energy Assessments	1,778	1,264	14,921,390	\$ 7,542,872	\$ 6,105,383	11.5%	\$ 165,311	\$ 6,270,694	73.0903918%		E7 * F7 \$ 4,583,275	
7 Total for Residential Conservation Programs	18,552	16,704	122,497,311	\$ 60,680,638	\$ 37,902,406		\$ 2,939,174	\$ 40,841,580			\$ 29,851,271	
8 My Home Energy Report (1)	94,985	39,714	342,160,803	\$ 22,825,595	\$ 12,932,554	11.5%	\$ 1,137,700	\$ 14,070,254	73.0903918%		E9 * F9 \$ 10,284,004	
9 Total Residential Conservation and Behavioral Programs	113,537	56,418	464,658,114	\$ 83,506,234	\$ 50,834,960		\$ 4,076,874	\$ 54,911,833			\$ 40,135,274	
10 PowerManager	658,987	-	-	\$ 82,948,182	\$ 20,427,903	11.5%	\$ 7,189,832	\$ 27,617,735	74.2414264%	45.9556149%	(E11+E29) *F11 *G11 \$ 17,221,124	
11 Total Residential	772,525	56,418	464,658,114	\$ 166,454,415	\$ 71,262,862		\$ 11,266,706	\$ 82,529,568			\$ 57,356,398	
Non-Residential Programs												
EE Programs												
12 Non Residential Smart Saver Custom Technical Assessments	626	626	5,482,371	\$ 2,779,419	\$ 1,106,646	11.5%	\$ 192,369	\$ 1,299,015	73.0903918%		E13 * F13 \$ 949,455	
13 Non Residential Smart Saver Custom	7,579	7,579	53,115,768	\$ 29,177,559	\$ 10,192,972	11.5%	\$ 2,183,228	\$ 12,376,199	73.0903918%		E14 * F14 \$ 9,045,813	
14 Non Residential Smart Saver Energy Efficient Food Service Products	212	196	4,280,461	\$ 1,428,585	\$ 1,057,658	11.5%	\$ 42,657	\$ 1,100,315	73.0903918%		E16 * F16 \$ 804,224	
15 Non Residential Smart Saver Energy Efficient HVAC Products	1,118	439	3,698,306	\$ 2,369,564	\$ 1,732,792	11.5%	\$ 73,229	\$ 1,806,021	73.0903918%		E17 * F17 \$ 1,320,028	
16 Non Residential Smart Saver Energy Efficient Lighting Products	27,805	26,034	156,866,525	\$ 94,718,674	\$ 24,280,837	11.5%	\$ 8,100,351	\$ 32,381,188	73.0903918%		E18 * F18 \$ 23,667,537	
17 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	429	424	2,717,418	\$ 1,234,566	\$ 424,983	11.5%	\$ 93,102	\$ 518,085	73.0903918%		E19 * F19 \$ 378,671	
18 Non Residential Energy Efficient ITEE	-	-	272,355	\$ 28,640	\$ 47,381	11.5%	\$ (2,155)	\$ 45,226	73.0903918%		E20 * F20 \$ 33,056	
19 Non Residential Energy Efficient Process Equipment Products	186	206	877,998	\$ 382,954	\$ 117,383	11.5%	\$ 30,541	\$ 147,924	73.0903918%		E21 * F21 \$ 108,118	
20 Non Residential Smart Saver Performance Incentive	1,701	1,701	14,901,572	\$ 7,088,559	\$ 2,365,586	11.5%	\$ 543,142	\$ 2,908,728	73.0903918%		E22 * F22 \$ 2,126,000	
21 Small Business Energy Saver	9,404	5,944	50,790,447	\$ 23,817,495	\$ 11,026,688	11.5%	\$ 1,470,943	\$ 12,497,630	73.0903918%		E23 * F23 \$ 9,134,567	
22 Total for Non-Residential Conservation Programs	49,060	43,150	293,003,221	\$ 163,026,017	\$ 52,352,927		\$ 12,727,405	\$ 65,080,332			\$ 47,567,470	
23 EnergyWise for Business	20,801	-	2,557,568	\$ 3,489,310	\$ 5,981,812	11.5%	\$ (286,638)	\$ 5,695,174	74.2414264%	54.0443851%	(E11+E29) *F29 *G29 \$ 20,252,260	
24 PowerShare	344,454	664	-	\$ 43,471,361	\$ 13,743,409	11.5%	\$ 3,418,714	\$ 17,162,124				
25 Total for Non-Residential DSM Programs	365,255	664	2,557,568	\$ 46,960,671	\$ 19,725,221		\$ 3,132,077	\$ 22,857,298				
26 Total Non Residential	414,316	43,814	295,560,789	\$ 209,986,688	\$ 72,078,147		\$ 15,859,482	\$ 87,937,630			\$ 67,819,730	
27 Total All Programs	1,186,840	100,233	760,218,903	\$ 376,441,103	\$ 143,341,010		\$ 27,126,188	\$ 170,467,198			\$ 125,176,128	

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages

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

Duke Energy Carolinas, LLC
 For the Period January 1, 2017 - December 31, 2021
 Docket Number E-7, Sub 1230
 North Carolina Net Lost Revenue Estimates for Vintages 2017 - 2021

Line	Vintage 2017						Total
	Residential	2017 ^(a)	2018	2019	2020	2021	
1	Residential Energy Assessments	\$ 198,264	\$ 274,951	\$ 178,148	\$ 66,827		\$ 718,191
2	My Home Energy Report	14,455,527	-	-	-		14,455,527
3	Energy Efficient Appliances and Devices	3,386,885	5,134,538	3,329,346	1,366,974		13,217,743
4	Residential – Smart Saver Energy Efficiency Program	197,134	264,823	171,558	62,120		695,635
5	Appliance Recycle Program	-	-	-	-		-
6	Income Qualified Energy Efficiency and Weatherization Assistance	141,450	210,612	136,514	55,631		544,208
7	Multi-Family Energy Efficiency	535,154	743,597	478,801	177,645		1,935,197
8	Energy Efficiency Education	165,283	221,302	143,362	49,313		579,260
9	Total Lost Revenues	19,079,697	6,849,823	4,437,730	1,778,511		32,145,761
10	Lost Revenue Decrement Pending Rate Case Implementation	-	-	-	289,930		289,930
11	Found Residential Revenues *	-	-	-	-		-
12	Net Lost Residential Revenues	\$ 19,079,697	\$ 6,849,823	\$ 4,437,730	\$ 1,488,581		\$ 31,855,831
Line	Non-Residential						Total
	Non-Residential	2017 ^(a)	2018	2019	2020	2021	
13	Nonresidential Smart Saver Custom Energy Assessments	\$ 220,191	\$ 358,289	\$ 366,388	\$ 143,464		\$ 1,088,332
14	Non Residential Smart Saver Custom	435,407	871,334	901,545	368,351		2,576,637
15	Energy Management Information Services	-	-	-	-		-
16	Non Residential Smart Saver Energy Efficient Food Service Products	28,410	40,771	41,428	12,007		122,616
17	Non Residential Smart Saver Energy Efficient HVAC Products	61,639	110,255	110,083	43,442		325,419
18	Non Residential Smart Saver Energy Efficient Lighting Products	6,200,869	10,299,304	10,366,805	3,645,665		30,512,643
19	Non Residential Smart Saver Energy Efficient Pumps and Drives Products	58,808	127,509	132,526	61,892		380,734
20	Non Residential Smart Saver Energy Efficient IT Products	82	162	162	61		468
21	Non Residential Smart Saver Energy Efficient Process Equipment Products	8,160	12,172	12,410	3,804		36,547
22	Non Residential Smart Saver Performance Incentive	66	774	759	442		2,041
23	Small Business Energy Saver	2,203,337	3,774,927	3,785,763	1,381,942		11,145,969
24	Smart Energy in Offices	209,310	149,382	-	-		358,692
25	Business Energy Report	-	-	-	-		-
26	EnergyWise for Business	85,268	158,514	158,671	65,096		467,549
27	Total Lost Revenues	9,511,547	15,903,393	15,876,541	5,726,167		47,017,648
28	Lost Revenue Decrement Pending Rate Case Implementation	-	-	-	926,185		926,185
29	Found Non-Residential Revenues *	-	-	-	-		-
30	Net Lost Non-Residential Revenues	\$ 9,511,547	\$ 15,903,393	\$ 15,876,541	\$ 4,799,982		\$ 46,091,463

* Found Revenues - See Evans Exhibit 4

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

Line	Vintage 2018						Total						
	Residential	2017 ^(a)	2018	2019	2020	2021							
31	Residential Energy Assessments	\$	204,097	\$	359,848	\$	210,787	\$	-	\$	774,732		
32	My Home Energy Report		15,751,701		-		-		-		15,751,701		
33	Energy Efficient Appliances and Devices		4,299,434		9,243,154		5,414,309		-		18,956,897		
34	Residential – Smart Saver Energy Efficiency Program		161,443		324,295		189,962		-		675,700		
35	Appliance Recycle Program		-		-		-		-		-		
36	Income Qualified Energy Efficiency and Weatherization Assistance		156,233		346,490		202,961		-		705,685		
37	Multi-Family Energy Efficiency		500,533		1,108,252		649,218		-		2,258,002		
38	Energy Efficiency Education		128,311		265,267		155,385		-		548,962		
39	Total Lost Revenues		-	21,201,751	11,647,306	6,822,621	-	-	-	-	39,671,679		
40	Lost Revenue Decrement Pending Rate Case Implementation					1,608,585					1,608,585		
41	Found Residential Revenues *												
42	Net Lost Residential Revenues	\$	-	\$	21,201,751	\$	11,647,306	\$	5,214,036	\$	-	\$	38,063,094

Line	Non-Residential						Total						
	Non-Residential	2017 ^(a)	2018	2019	2020	2021							
43	Nonresidential Smart Saver Custom Energy Assessments	\$	212	\$	866	\$	671	\$	300	\$	2,049		
44	Non Residential Smart Saver Custom		462,774		773,959		599,124		134,979		1,970,835		
45	Energy Management Information Services		-		-		-		-		-		
46	Non Residential Smart Saver Energy Efficient Food Service Products		14,117		22,612		17,505		3,772		58,006		
47	Non Residential Smart Saver Energy Efficient HVAC Products		50,245		116,447		90,192		30,218		287,102		
48	Non Residential Smart Saver Energy Efficient Lighting Products		4,102,094		6,719,187		5,203,682		1,182,368		17,207,330		
49	Non Residential Smart Saver Energy Efficient Pumps and Drives Products		66,649		87,662		67,855		8,628		230,793		
50	Non Residential Smart Saver Energy Efficient IT Products		185		876		678		317		2,056		
51	Non Residential Smart Saver Energy Efficient Process Equipment Products		6,501		10,498		8,128		1,776		26,903		
52	Non Residential Smart Saver Performance Incentive		20,243		84,759		65,573		29,373		199,948		
53	Small Business Energy Saver		1,776,069		3,462,894		2,681,778		765,602		8,686,343		
54	Smart Energy in Offices		39,733		3,847		-		-		43,580		
55	Business Energy Report		-		-		-		-		-		
56	EnergyWise for Business		66,282		120,486		93,316		24,695		304,779		
57	Total Lost Revenues		-	6,605,105	11,404,093	8,828,500	2,182,027	-	-	-	29,019,725		
58	Lost Revenue Decrement Pending Rate Case Implementation					1,574,142					1,574,142		
59	Found Non-Residential Revenues *												
60	Net Lost Non-Residential Revenues	\$	-	\$	6,605,105	\$	11,404,093	\$	7,254,358	\$	2,182,027	\$	27,445,583

* Found Revenues - See Evans Exhibit 4

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

Line	Vintage 2019 Residential	2017 ^(a)	2018	2019	2020	2021	Total
61	Residential Energy Assessments			\$ 195,756	\$ 277,275	\$ 160,688	\$ 633,719
62	My Home Energy Report			16,556,381	-	-	16,556,381
63	Energy Efficient Appliances and Devices			4,884,189	6,969,929	4,117,409	15,971,527
64	Residential – Smart Saver Energy Efficiency Program			192,394	297,957	176,553	666,904
65	Appliance Recycle Program			-	-	-	-
66	Income Qualified Energy Efficiency and Weatherization Assistance			225,833	321,143	183,651	730,627
67	Multi-Family Energy Efficiency			645,327	911,703	503,312	2,060,342
68	Energy Efficiency Education			148,216	260,619	155,168	564,003
69	Total Lost Revenues	-		22,848,096	9,038,626	5,296,780	37,183,503
70	Lost Revenue Decrement Pending Rate Case Implementation				866,360		866,360
71	Found Residential Revenues *						
72	Net Lost Residential Revenues	\$ -		\$ 22,848,096	\$ 8,172,266	\$ 5,296,780	\$ 36,317,143

Line	Non-Residential	2017 ^(a)	2018	2019	2020	2021	Total
73	Nonresidential Smart Saver Custom Energy Assessments			\$ 83,809	\$ 87,137	\$ 87,137	\$ 258,083
74	Non Residential Smart Saver Custom			872,916	1,892,292	1,892,292	4,657,500
75	Energy Management Information Services			-	-	-	-
76	Non Residential Smart Saver Energy Efficient Food Service Products			11,399	22,027	22,027	55,453
77	Non Residential Smart Saver Energy Efficient HVAC Products			156,513	369,527	369,527	895,568
78	Non Residential Smart Saver Energy Efficient Lighting Products			3,333,966	5,782,387	5,782,387	14,898,740
79	Non Residential Smart Saver Energy Efficient Pumps and Drives Products			20,742	40,055	40,055	100,851
80	Non Residential Smart Saver Energy Efficient IT Products			250	448	448	1,145
81	Non Residential Smart Saver Energy Efficient Process Equipment Products			15,405	20,738	20,738	56,882
82	Non Residential Smart Saver Performance Incentive			24,374	119,631	119,631	263,637
83	Small Business Energy Saver			1,334,037	2,334,068	2,334,068	6,002,173
84	Smart Energy in Offices			-	-	-	-
85	Business Energy Report			-	-	-	-
86	EnergyWise for Business			62,574	126,345	126,345	315,263
87	Total Lost Revenues	-		5,915,986	10,794,655	10,794,655	27,505,296
88	Lost Revenue Decrement Pending Rate Case Implementation				1,448,109		1,448,109
89	Found Non-Residential Revenues *						
90	Net Lost Non-Residential Revenues	\$ -		\$ 5,915,986	\$ 9,346,546	\$ 10,794,655	\$ 26,057,187

* Found Revenues - See Evans Exhibit 4

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

Line	Vintage 2020						Total
	Residential	2017 ^(a)	2018	2019	2020	2021	
91	Residential Energy Assessments				161,966	289,779	\$ 451,745
92	My Home Energy Report				14,686,468	-	14,686,468
93	Energy Efficient Appliances and Devices				1,237,431	1,982,233	3,219,664
94	Residential – Smart Saver Energy Efficiency Program				263,183	498,132	761,315
95	Appliance Recycle Program				-	-	-
96	Income Qualified Energy Efficiency and Weatherization Assistance				103,534	362,395	465,930
97	Multi-Family Energy Efficiency				496,249	939,264	1,435,513
98	Energy Efficiency Education				146,751	423,675	570,426
99	Total Lost Revenues	-		-	17,095,583	4,495,479	21,591,062
100	Lost Revenue Decrement Pending Rate Case Implementation				2,428,488	-	2,428,488
101	Found Residential Revenues *				-	-	-
102	Net Lost Residential Revenues	\$ -		\$ -	\$ 14,667,095	\$ 4,495,479	\$ 19,162,574
Non-Residential		2017 ^(a)	2018	2019	2020	2021	Total
103	Nonresidential Smart Saver Custom Energy Assessments				\$ 136,414	\$ 250,432	\$ 386,846
104	Non Residential Smart Saver Custom				1,201,984	2,299,277	3,501,261
105	Energy Management Information Services				-	-	-
106	Non Residential Smart Saver Energy Efficient Food Service Products				93,624	138,074	231,698
107	Non Residential Smart Saver Energy Efficient HVAC Products				61,819	83,451	145,269
108	Non Residential Smart Saver Energy Efficient Lighting Products				3,029,908	4,219,711	7,249,619
109	Non Residential Smart Saver Energy Efficient Pumps and Drives Products				94,651	147,632	242,283
110	Non Residential Smart Saver Energy Efficient IT Products				6,639	10,148	16,786
111	Non Residential Smart Saver Energy Efficient Process Equipment Products				12,061	17,544	29,605
112	Non Residential Smart Saver Performance Incentive				402,902	726,898	1,129,800
113	Small Business Energy Saver				955,245	1,413,098	2,368,343
114	Smart Energy in Offices				-	-	-
115	Business Energy Report				-	-	-
116	EnergyWise for Business				46,148	70,456	116,603
117	Total Lost Revenues	-		-	6,041,394	9,376,721	15,418,115
118	Lost Revenue Decrement Pending Rate Case Implementation				858,201	-	858,201
119	Found Non-Residential Revenues *				-	-	-
120	Net Lost Non-Residential Revenues	\$ -		\$ -	\$ 5,183,193	\$ 9,376,721	\$ 14,559,914

* Found Revenues - See Evans Exhibit 4

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

Vintage 2021							
Line	Residential	2017 ^(a)	2018	2019	2020	2021	Total
121	Residential Energy Assessments					390,315	\$ 390,315
122	My Home Energy Report					22,036,642	22,036,642
123	Energy Efficient Appliances and Devices					1,461,671	1,461,671
124	Residential – Smart Saver Energy Efficiency Program					141,218	141,218
125	Appliance Recycle Program					-	-
126	Income Qualified Energy Efficiency and Weatherization Assistance					216,311	216,311
127	Multi-Family Energy Efficiency					748,492	748,492
128	Energy Efficiency Education					215,041	215,041
129	Total Lost Revenues	-	-	-	-	25,209,690	25,209,690
130	Found Residential Revenues *					-	-
131	Net Lost Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ 25,209,690	\$ 25,209,690

Non-Residential							
Line	Non-Residential	2017 ^(a)	2018	2019	2020	2021	Total
132	Nonresidential Smart Saver Custom Energy Assessments					\$ 93,807	\$ 93,807
133	Non Residential Smart Saver Custom					986,152	986,152
134	Energy Management Information Services					-	-
135	Non Residential Smart Saver Energy Efficient Food Service Products					107,100	107,100
136	Non Residential Smart Saver Energy Efficient HVAC Products					87,660	87,660
137	Non Residential Smart Saver Energy Efficient Lighting Products					3,741,050	3,741,050
138	Non Residential Smart Saver Energy Efficient Pumps and Drives Products					56,674	56,674
139	Non Residential Smart Saver Energy Efficient IT Products					5,557	5,557
140	Non Residential Smart Saver Energy Efficient Process Equipment Products					14,632	14,632
141	Non Residential Smart Saver Performance Incentive					265,513	265,513
142	Small Business Energy Saver					953,671	953,671
143	Smart Energy in Offices					-	-
144	Business Energy Report					-	-
145	EnergyWise for Business					48,898	48,898
146	Total Lost Revenues	-	-	-	-	6,360,715	6,360,715
147	Found Non-Residential Revenues *					-	-
148	Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ 6,360,715	\$ 6,360,715

* Found Revenues - See Evans Exhibit 4

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

Duke Energy Carolinas, LLC
For the Period January 1, 2019 - December 31, 2019
Docket Number E-7 Sub 1230
Actual Program Costs for Vintage Years 2017, 2018 , 2019

	Carolinas System - 12 months Ended 12/31/2017	Carolinas System - 12 months Ended 12/31/2018	Carolinas System - 12 months Ended 12/31/2019	
1	Residential Energy Assessments	2,909,098	2,836,229	3,186,888
2	My Home Energy Report	13,812,250	12,765,286	10,555,159
3	Energy Efficient Appliances and Devices	30,340,728	42,687,244	41,380,987
4	Residential – Smart \$aver Energy Efficiency Program	7,403,327	6,955,146	7,400,669
5	Appliance Recycle Program	5,307	-	-
6	Income Qualified Energy Efficiency and Weatherization Assistance	5,505,992	6,490,735	7,342,133
7	Multi family Energy Efficiency	3,168,422	3,604,921	3,680,155
8	Energy Efficiency Education	2,077,611	1,992,260	1,684,083
9	Nonresidential Smart Saver Custom Energy Assessments	2,139,875	407,293	295,925
10	Energy Management Information Systems	-	-	-
11	Non-Residential Smart Saver Custom	7,304,838	6,068,902	8,871,440
12	Non-Residential Smart Saver Performance Incentive	320,559	479,610	784,949
13	Non-Residential Energy Efficient Food Service Products	306,488	235,605	339,904
14	Non-Residential Smart Saver Energy Efficient HVAC Products	1,560,769	1,620,748	2,207,760
15	Non-Residential Smart Saver Energy Efficient Lighting Products	66,689,770	25,872,380	20,829,118
16	Nonresidential Energy Efficient Pumps and Drives Products	528,937	277,785	189,123
17	Nonresidential Energy Efficient ITEE	61,215	36,875	44,323
18	Nonresidential Energy Efficient Process Equipment Products	162,413	67,509	119,811
19	Smart Energy In Offices	891,010	219,748	-
20	Small Business Energy Saver	17,350,972	15,977,993	11,418,264
21	Business Energy Report	126,680	-	-
22	Power Manager	14,021,500	14,423,610	13,383,639
23	EnergyWise for Business	2,484,618	3,062,816	3,686,451
24	Power Share	13,316,535	12,922,977	13,019,606
25				
26	Total Energy Efficiency & Demand Side Program Costs	\$ 192,488,915	\$ 159,005,671	\$ 150,420,388

27	NC Allocation Factor for EE programs	72.8087506%	72.7130507%	73.0903918%
28	NC Allocation Factor for DSM programs-Residential	33.8075104%	32.1574721%	34.1181040%
29	NC Allocation Factor for DSM programs-Non-Residential	40.0747013%	41.4712829%	40.1233224%

	NC Allocated - 12 Months Ended 12/31/2017	NC Allocated - 12 Months Ended 12/31/2018	NC Allocated - 12 Months Ended 12/31/2019	
30	Residential Energy Assessments	\$ 2,118,078	\$ 2,065,023	\$ 2,329,309
31	My Home Energy Report	\$ 10,056,526	9,294,245	7,714,807
32	Energy Efficient Appliances and Devices	\$ 22,090,705	31,080,049	30,245,525
33	Residential – Smart \$aver Energy Efficiency Program	\$ 5,390,270	5,063,955	5,409,178
34	Appliance Recycle Program	\$ 3,864	-	-
35	Income Qualified Energy Efficiency and Weatherization Assistance	\$ 4,008,844	4,725,823	5,366,394
36	Multi family Energy Efficiency	\$ 2,306,888	2,624,698	2,689,840
37	Energy Efficiency Education	\$ 1,512,683	1,450,539	1,230,903
38	Nonresidential Smart Saver Custom Energy Assessments	\$ 1,558,016	296,545	216,292
39	Energy Management Information Systems	\$ -	-	-
40	Non-Residential Smart Saver Custom	\$ 5,318,561	4,418,691	6,484,170
41	Non-Residential Smart Saver Performance Incentive	\$ -	-	573,723
42	Non-Residential Energy Efficient Food Service Products	\$ 223,150	171,541	248,437
43	Non-Residential Smart Saver Energy Efficient HVAC Products	\$ 1,136,376	1,180,046	1,613,660
44	Non-Residential Smart Saver Energy Efficient Lighting Products	\$ 48,555,988	18,837,357	15,224,084
45	Nonresidential Energy Efficient Pumps and Drives Products	\$ 385,112	202,252	138,231
46	Nonresidential Energy Efficient ITEE	\$ 44,570	26,848	32,396
47	Nonresidential Energy Efficient Process Equipment Products	\$ 118,251	49,153	87,570
48	Smart Energy In Offices	\$ 648,734	159,996	-
49	Small Business Energy Saver	\$ 12,633,026	11,633,377	8,345,654
50	Business Energy Report	\$ 92,234	-	-
51	Power Manager	\$ 10,082,296	9,778,895	10,266,034
52	EnergyWise for Business	\$ 1,879,262	2,416,251	2,664,092
53	Power Share	\$ 10,072,077	10,194,918	9,408,894
54				
55	Total Energy Efficiency & Demand Side Program Costs	\$ 140,235,514	\$ 115,670,203	\$ 110,289,194

Duke Energy Carolinas, LLC
January 2018 - December 2019 Actuals
January 2020 - December 2021 Estimates
Docket Number E-7, Sub 1230
North Carolina Found Revenues

			Estimated KWH		Total	Decision Tree Node
	2018	2019	2020	2021		
Economic Development	507,965,880	285,918,000	-	-	793,883,880	Box 5 - exclude
Plug-in Electric Charging Station Pilot	-	-	-	-	-	Box 3 - exclude
Lighting						
Residential	62,832	48,249	48,249	48,249	207,579	Box 6 - include
Non Residential (Regulated)	67,443	105,681	105,681	105,681	384,486	Box 6 - include
MV to LED Credit - Residential (Regulated)	(150,968)	(113,648)	(240,348)	(305,768)	(810,731)	Box 6 - include
MV to LED Credit - Non-Residential (Regulated)	(248,852)	(232,984)	(492,724)	(626,839)	(1,601,399)	Box 6 - include
Total KWH	507,696,335	285,725,298	(579,142)	(778,677)	792,063,814	
Total KWH Included	(269,545)	(192,702)	(579,142)	(778,677)	(1,820,066)	
Total KWH Included (net of Free Riders 15%)	(229,113)	(163,797)	(492,271)	(661,875)	(1,547,056)	
Annualized Found Revenue - Non Residential	\$ (96,542)	\$ (209,678)	\$ (209,678)	\$ (282,333)	\$ (798,230)	
Annualized Found Revenue - Residential	\$ (59,309)	\$ (133,126)	\$ (133,126)	\$ (178,463)	\$ (504,025)	
	2018	2019	2020	2021	Total	
Vintage 2014 - Non Res					-	
Vintage 2015 - Non Res	(13,108)				(13,108)	
Vintage 2016 - Non Res	(30,720)	(10,169)			(40,889)	
Vintage 2017 - Non Res	(47,791)	(47,791)	(21,240)		(116,823)	
Vintage 2018 - Non Res	(51,711)	(96,542)	(74,925)	(20,662)	(243,840)	
Vintage 2019 - Non Res		(24,424)	(69,401)	(69,401)	(163,225)	
Vintage 2020 - Non Res			(113,575)	(209,678)	(323,253)	
Vintage 2021 - Non Res				(152,931)	(152,931)	
Net Negative Found Revenues to Zero*	143,330	178,925	279,142	452,671	1,054,068	
Subtotal - Non Res	\$ -	\$ -	\$ -	\$ -	\$ -	
Vintage 2014 - Res					-	
Vintage 2015 - Res	(17,981)				(17,981)	
Vintage 2016 - Res	(39,657)	-			(39,657)	
Vintage 2017 - Res	(50,953)	(32,706)	(14,824)		(98,484)	
Vintage 2018 - Res	(28,325)	(59,309)	(34,597)	-	(122,230)	
Vintage 2019 - Res		(29,926)	(59,823)	(34,705)	(124,455)	
Vintage 2020 - Res			(69,738)	(127,434)	(197,172)	
Vintage 2021 - Res				(96,668)	(96,668)	
Net Negative Found Revenues to Zero*	136,917	121,941	178,982	258,806	696,646	
Subtotal - Residential	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Found Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	

* Eliminates the inclusion of total negative found revenues at the Residential and Non-Residential level

Duke Energy Carolinas
System Event Based Demand Response January 1, 2019 - December 31, 2019
Docket Number E-7, Sub 1230

Date	State	Program Name	Event Trigger	High / Low System Temp (F)	Customers Notified /Switches Dispatched	MW Reduction
7/15/2019	NC and SC	Power Manager	M&V Event	91 / 74	226,600 / 272,600	275.0
7/19/2019	NC and SC	Power Manager	M&V Event	94 / 74	23,800 / 28,700	n/a
8/9/2019	NC and SC	Power Manager	M&V Event	93 / 70	238,400 / 286,700	302.3
8/19/2019	NC and SC	Power Manager	M&V Event	92 / 73	Tests across different hours with different subgroups	n/a
9/9/2019	NC and SC	Power Manager	M&V Event	93 / 68	226,800 / 272,700	182.9
9/12/2019	NC and SC	Power Manager	M&V Event	96 / 71	226,800 / 272,700	230.0
9/17/2019	NC and SC	Power Manager	M&V Event	91 / 69	226,600 / 272,500	200.0
9/26/2019	NC and SC	Power Manager	M&V Event	92 / 65	226,500 / 272,300	227.3

Notes:

- The 'High / Low System Temperature' is the average of the daily high & low temperatures from 3 weather stations (Charlotte, Greensboro, Greenville/Spartanburg)
- 'Customers Notified' is the number of participants notified to participate in the event
- 'Switches Dispatched' values represent the monthly active switch counts
- 'MW Reduction' values are based on the average across all hours of the event
- A loss adjustment of 1.0622 has been included in the 'MW Reduction' values.
- Customer and switch counts are estimated and rounded to nearest 100 due to not all customers being controlled in M&V events - some were left out as part of an uncontrolled control group.
- There were no PowerShare curtailment events in 2019

Duke Energy Carolinas, LLC – Executive Summary

OFFICIAL COPY

Feb 25 2020

A. Description

During the first quarter 2019, Duke Energy Carolinas product managers prepared reports on each program describing the offerings and detailing each program's performance. This Executive Summary describes how the Company performed at an aggregate level during the full year of Vintage 2019 in comparison to as-filed information. Program-specific details are provided in the individual reports.

Program reports include:

Program	Category	Customer
Energy Assessments	EE	Residential
Energy Efficient Appliances and Devices	EE	Residential
Energy Efficiency Education Programs	EE	Residential
Residential – Smart \$aver Energy Efficiency Program (HVAC EE)	EE	Residential
Income Qualified Energy Efficiency and Weatherization Assistance	EE	Residential
My Home Energy Report	EE	Residential
Multi-Family Energy Efficiency	EE	Residential
Non-Residential Smart \$aver Prescriptive	EE	Non-residential
Non-Residential Smart \$aver Custom	EE	Non-residential
Non-Residential Smart \$aver Custom Assessment	EE	Non-residential
Non-Residential Smart \$aver Performance Incentive	EE	Non-residential
Small Business Energy Saver	EE	Non-residential
EnergyWise for Business	EE/DSM	Non-residential
Power Manager	DSM	Residential
PowerShare	DSM	Non-residential

Audience

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

B & C. Impacts, Participants and Expenses

The tables below include actual results for the full year of Vintage 2019 in comparison to as-filed data for Vintage 2019.

The Company includes the number of units achieved and a percentage comparison to the as filed values. The unit of measure varies by measure as a participant, for example, may be a single LED bulb, a kW, a kWh, a household or a square foot. Due to the multiple measures in a given program or programs, units may appear skewed and are not easily comparable.

Carolinas System Summary¹

<i>\$ in millions, rounded</i>	Vintage 2019	Vintage 2019	% of
	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$356.3	\$437.7	123%
Program Cost	\$144.8	\$150.4	104%
MW ²	1,039.9	1,103.0	106%
MWH	781,393.7	844,286.5	108%
Units	106,419,427	72,688,882	68%

1) Values are reflected at the system level.

2) As filed MW are annual maximum peak. Coincident peak is tracked for impacts.

Duke Energy Carolinas, LLC – Executive Summary

Carolinas Demand Response Summary¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$102.6	\$114.6	112%
Program Cost	\$31.3	\$30.1	96%
MW²	888.9	922.4	104%
MWH	2,885.9	2,704.1	94%
Units³	840,237	873,290	104%

- 1) Values are reflected at the system level.
- 2) MW capability derived by taking the average over the PowerShare and PowerManager contract periods.
- 3) Units included in filing represented kW at meter, rather than number of participants. YTD value reflects average participation for 2019.

Carolinas Energy Efficiency Summary¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$253.7	\$323.1	127%
Program Cost	\$113.6	\$120.3	106%
MW²	150.9	180.6	120%
MWH	778,507.8	841,582.4	108%
Units	105,579,190	71,815,592	68%

- 1) Values are reflected at the system level.
- 2) As filed MW are annual maximum peak. Coincident peak is tracked for impacts.

D. Qualitative Analysis

Energy efficiency impacts have primarily been driven by lighting measures for both residential and non-residential customers. This is a result of a higher take-rate for lighting offerings than originally projected.

Highlights

Energy Efficiency

Customer participation continues to be largely driven by lighting and assessments programs. These measures provide customers with a relatively low-cost efficiency upgrade, with minimal effort, creating a positive initial energy efficiency experience.

Demand Side Management (DSM)

The DSM portfolio is comprised of PowerShare (non-residential), Power Manager (residential), and EnergyWise for Business (non-residential) programs. The impacts and participation were very close to the 2019 as-filed targets.

Issues

A few of the Company's programs filed for program modifications at the close of the year. The Company faces a significant challenge with reductions in avoided costs, making programs and their measures potentially less impactful. As a result of this and other factors, the Company's continued assessment of its portfolio may result in the removal of or change in measures.

Duke Energy Carolinas, LLC – Executive Summary

Potential Changes

Several programs are reviewing their current processes and are 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.

Income-Qualified 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 installing energy efficiency measures in their homes. There are three offerings currently in the Program:

- Neighborhood Energy Saver (“NES”)
- Weatherization and Equipment Replacement Program (“WERP”)
- Refrigerator Replacement Program (“RRP”).

WERP and RRP are available for income-qualified customers in Duke Energy Carolinas, LLC’s (the “Company’s”) service territory for existing, individually metered single-family homes, condominiums, and mobile homes. Funds are available for (i.) weatherization measures and/or (ii.) heating system replacement with a 15 or greater SEER heat pump, and/or (iii.) refrigerator replacement with an Energy Star appliance. The measures eligible for funding will be determined by a full energy audit of the residence. Based on the results of the audit, customers are placed into a tier based on energy usage so that high energy users to receive more extensive weatherization measures. (Tier 1 provides up to \$600 for energy efficiency services; and Tier 2 provides up to \$4,000 for energy efficiency services, including insulation.) WERP and RRP are delivered in coordination with State agencies that administer the state’s weatherization programs.

Customers participating in NES receive a walk-through energy assessment to identify energy efficiency opportunities in the customer’s home and a one-on-one education on energy efficiency techniques and measures. Additionally, the customer receives a comprehensive package of energy efficient measures. NES participants may have the measures listed below installed in their homes based on the opportunities identified during the energy assessment.

1. Energy Efficient Bulbs - Up to 15 energy efficient bulbs (LEDs) to replace incandescent bulbs
2. Electric Water Heater Wrap and Insulation for Water Pipes
3. Electric Water Heater Temperature Check and Adjustment
4. Water Saving Faucet Aerators - Up to three faucet aerators
5. Water Saving Showerheads - Up to two showerheads
6. Wall Plate Thermometer
7. HVAC Winterization Kits – Up to three 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. 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

WERP is available to qualified customers in existing individually metered, owner-occupied single-family residences, condominiums or manufactured homes.

RRP is available to qualified customers in individually metered residences irrespective of whether the property owner or the tenant owns the refrigerator.

NES is available to individually metered residential customers in selected neighborhoods where ~50% of the homeowners have income equal to or less than 200% of the Federal Poverty Guidelines, based on third party and census data.

Income-Qualified Energy Efficiency and Weatherization Assistance Program

B & C. Impacts, Participants and Expenses

Income Qualified Energy Efficiency and Weatherization Assistance¹

<i>\$ in millions, rounded</i>	Vintage 2019		% of Target
	As Filed	YTD December 31, 2019	
NPV of Avoided Cost	\$1.5	\$3.6	239%
Program Cost	\$7.9	\$7.3	93%
MW	0.6	1.1	173%
MWH	4,043.4	9,029.8	223%
Units	10,114	10,814	107%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

Neighborhood Energy Saver: After receiving regulatory approval from both the North Carolina Utilities Commission and the South Carolina Public Service Commission in the fall of 2012, the Program was officially launched by the Company in March 2013. The yearly goal is to serve a minimum of 8,926 households. Honeywell Building Solutions was awarded the contract through a competitive bid process to administer the Program.

In 2019, NES offered free walk-through energy assessments to 8 qualifying neighborhoods in NC – Bessemer City, Burlington, Charlotte, Durham, Greensboro, Hickory, Kannapolis, Winston Salem and 3 qualifying neighborhoods in SC – Greenville, Kershaw and Spartanburg. Neighborhood events have included support from community groups and speakers such as elected officials, community leaders and community action agency representatives.

Weatherization: The Company launched WERP and RRP in February 2015 in North and South Carolina. The Company selected the program administrator, North Carolina Community Action Agency (NCCAA), in December 2014 via competitive bidding. The company is working with the NC and SC Weatherization Agencies to deliver this program.

In 2019, 736 homes received weatherization in conjunction with the DOE weatherization program, with 292 refrigerators replaced, 69 Tier 1 services provided, and 667 Tier 2 services provided.

E. Marketing Strategy

Neighborhood Energy Saver: NES continues to 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 and local and state officials 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 have the option to make an appointment 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 eligible customers about the Program:

- Direct mail (letters and reminder post cards)
- Door hangers
- Press releases and/or neighborhood flyers

Income-Qualified Energy Efficiency and Weatherization Assistance Program

- Community presentations and partnerships
- Inclusion in community publications such as newsletters, etc.

Weatherization: WERP and RRP plan to piggy-back the marketing efforts of the current state Weatherization Assistance Programs administered by the state weatherization service providers. Additionally, agencies may utilize referrals generated from other Company energy efficiency programs as well as from their existing pool of weatherization applicants.

Direct Weatherization Pilot: In 2018-2019, a Direct Weatherization pilot was executed in a high-density area within DEC shown to have a significant low-income customer base. Through the use of internal customer data, high-energy use accounts with low-income indicators were targeted through direct mail and invited to apply for weatherization and refrigerator replacement programs. Through initial letters with follow-up postcards and a toll-free customer number, customers expressed their interests and follow-up appointments were set. Determination as to whether the program is to continue is pending.

F. Evaluation, Measurement and Verification

The process and impact evaluation report for the Neighborhood Energy Saver portion of the Program was completed late in the fourth quarter of 2019. This was a combined evaluation with DEP. High level impacts for the engineering estimates include 676 kWh energy savings per participant, due to higher percentages of participants with electrically-heated homes and water heating. Since the program is focused on income-qualified participants, the net-to-gross is considered 1.0

The process evaluation assessed program operations and identified potential opportunity areas. Satisfaction for the program overall and the measures specifically was high – both reflected scores of 99% of participants satisfaction.

Energy Efficiency Education Program

A. Description

The Energy Efficiency Education Program (“Program”) is available to students in grades K-12 enrolled in public and private schools in the Duke Energy Carolinas (the “Company” or “DEC”) service territory. The current curriculum administered by The National Theatre for Children (“NTC”) provides performances in elementary, middle and high schools.

The Program provides principals and teachers with an innovative curriculum to educate students about energy, resources, how energy and resources are related, ways energy is wasted, and how to be more energy efficient. The centerpiece of the curriculum is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency and performed by two professional actors. Teachers receive supportive educational material for classroom and student take-home assignments. The workbooks, assignments and activities meet state curriculum requirements.

School principals are the main point of contact for scheduling their school's performance at their convenience. 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, and classroom and family activity books.

Students are encouraged to complete a request form with their families (found in their classroom and family activity book, as well as online) to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption. It is available at no cost to eligible Duke Energy customer households at participating schools.

Audience

Eligible participants include the Company's residential customers who reside in households served by Duke Energy Carolinas with school-age children enrolled in public and private schools.

B & C. Impacts, Participants and Expenses

Energy Efficiency Education¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$2.6	\$2.5	98%
Program Cost	\$2.1	\$1.7	80%
MW	1.3	0.8	63%
MWH	5,701.5	6,713.8	118%
Units	26,705	24,785	93%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

The Company is supporting arts and theatre in schools while providing an important message about energy efficiency for students through an innovative delivery channel. Enhancing the message with a live theatrical production captivates the students' attention and reinforces the classroom curriculum materials provided.

For the 2018-2019 school year, elementary students enjoy watching *Kilowatt Kitchen* performed by two professional actors. Elementary schools will learn how to measure the energy we use and how we can reduce the energy we waste while watching Lorraine Quiche realize her dream of opening her own restaurant Kilowatt Kitchen. In this 25-minute educational play, Lorraine learns how to use energy wisely and saves the day for her Kilowatt Kitchen!

Energy Efficiency Education Program

OFFICIAL COPY

Feb 25 2020

The E-Team is a 35-minute, live show for grades six through nine. The program consists of two actors with two goals. The first goal is to highlight how we measure energy, the uses of energy, how energy is wasted and renewable resources. The second goal is to make the middle school students laugh so hard that they forget they are learning. The show is a series of improvised comedy sketches between characters in all sorts of hilarious situations. Before each scene, actors interact with the audience and get ideas that will be used during the sketch, such as their favorite band or a household pet. The ideas are incorporated into the show and may change the course of a scene.

High School students enjoyed the 45-minute live performance titled "What's your Goal". The performance consists of segments including student volunteers to take part in a sketch called "Moving Bodies" where the volunteer has complete control over the movement of the two actors as they explore ways to save energy at home and discuss the impact that energy saving items can have. The second segment is a game show called "The Carbon Footrace". Students are placed on teams and asked questions about what a carbon footprint is and ways they can reduce their own carbon footprint. The last segment takes the form of an interactive "TED Talk" style presentation where the actors explore topics relating to the effects of global climate change and how it relates to industries and economies. The students are offered information on what they can do and what careers they can explore to help do their part for the future of the planet.

From January through December 2019, a total of 587 schools hosted 919 performances in the Company's DEC service territory, reaching approximately 198,278 students and spurring the distribution of 24,785 kits.

Once an eligible customer submits a completed energy efficiency survey, the Energy Efficiency Starter Kit is shipped for delivery within two to four weeks. To ensure customer satisfaction with the Energy Efficiency Starter Kit and the installation of items, customers receive an email reminder monthly after the kit delivery to encourage families to return their Business Reply Card (BRC) verifying installation of measures. Qualified households that submit their energy efficiency survey and return the BRC are automatically entered into the household contest drawing, sponsored by NTC.

Additionally, school and classroom contests encourage sign-ups, and NTC awards checks to schools whose students, along with their families, completed home energy surveys and received energy efficiency kits. In the fall and spring of each year, a drawing is held selecting one school and one household contest winner. Principals, teachers and students may view their school's progress and compare the number of signups to other schools via the website, www.trackmysignups.org.

Updates

The Company continues to enhance the Program by the following:

- Introducing new productions each school year to refresh and refocus the materials and scripts to keep participating schools engaged.
- Promoting the program through social media to encourage awareness, recognition and participation.
- Partnering with Duke Energy Account and District Managers to leverage existing relationships in the community to develop positive media stories while encouraging kit sign ups.
- Offering teacher satisfaction survey evaluations after the performances for both the elementary and middle school shows. Average survey data from January through December indicated 95% of the Elementary teachers surveyed and 94% of Middle School teachers surveyed had very high satisfaction ratings.
- Enhancing the offering by providing additional materials for all student households, but particularly those that have already received the current Energy Efficiency Starter Kit as well as non-Duke Energy customer student households. Including non-Duke customer households increases

Energy Efficiency Education Program

customer satisfaction and provides additional energy savings impacts for all customers, but particularly those customers that would otherwise have been excluded from the kit offering.

- Inclusion of the Kilowatt Krush mobile gaming application that will allow users to learn about smart energy use and conservation through an engaging arcade of action-packed, energy themed games. Students build and customize virtual houses in the neighborhood of their choice while learning about energy efficiency and safety education.

E. Marketing Strategy

The National Theatre for Children is responsible for all marketing campaigns and outreach. The marketing channels may include but are not limited to the following:

- Direct mail (letters to school administrators)
- Email
- In-Person
- Program Website
- Events or assemblies
- Printed materials for classrooms
- Social media promotions

These marketing efforts engage students and their families in energy conservation behavior and provide energy saving opportunities through the Energy Efficiency Starter kits.

F. Evaluation, Measurement and Verification

The evaluation report summary was presented at the Second Quarter 2019 Carolinas Collaborative. Results covered an evaluation period of August 2017 through July 2018. The evaluation methodology included verified impacts through engineering estimates. In addition, behavioral impacts were determined by surveying participants about actions taken as a result of the program and determining the engineering estimates of those actions. Participant surveys were also utilized to refine in-service rates, provide inputs into other algorithm variables, and help establish free ridership and spillover. Free ridership was estimated at 16% with spillover estimated at 9%, for an effective net-to-gross of 94%.

The process evaluation determined that teachers were satisfied with the performances and curriculum materials. Participating families were satisfied with the program overall and the measures included in the program, with lighting measures recording the highest satisfaction.

My Home Energy Report

OFFICIAL COPY

Feb 25 2020

A. Description

The My Home Energy Report (“MyHER” or the “Program”) is a periodic usage report that compares a customer’s energy use to similar residences in the same geographical area based upon the age, size and heating source of the home. The report includes recommendations to encourage energy saving behaviors. Customers with email addresses on file receive an electronic version of their reports monthly.

Customers receive reports up to 12 times per year via paper and electronic delivery. (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. Customer’s usage is compared to the average homes (top 50 percent) in their area as well as the efficient homes (top 25 percent). It also suggests energy efficiency improvements, given the usage profile for that home. In addition, the report recommends measure-specific offers, rebates or audit follow-ups from the Company’s other programs, based on the customer’s energy profile. As of December 31, 2019, over 1.2 million single-family DEC customers and over 174 thousand multi-family DEC customers receive the MyHER report.

The MyHER interactive online portal allows customers to learn more about their energy use and about opportunities to reduce their usage. Customers can set goals, track their progress, and receive more targeted tips. As of December 31, 2019, over 68 thousand single-family customers and over 6 thousand multi-family customers were enrolled on the portal.

Audience

Target customers reside in individually metered, single-family and multi-family residences with active accounts and 13 months of concurrent service from Duke Energy Carolinas, LLC (the “Company”). Single-family residences receive up to 8 printed reports and, if they have an email address on file, 12 electronic reports. Multi-family residences with registered email addresses with the Company receive up to 4 printed reports and 8 electronic reports. Multi-family residences without registered email addresses with the Company receive up to 6 printed reports a year with a strong call to action to provide their email addresses.

B & C. Impacts, Participants and Expenses

My Home Energy Report¹

<i>\$ in millions, rounded</i>	Vintage 2019		% of Target
	As Filed	YTD December 31, 2019	
NPV of Avoided Cost	\$20.9	\$23.4	112%
Program Cost	\$13.4	\$10.6	79%
MW²	79.4	91.4	115%
MWH²	312,934.1	328,439.1	105%
Units³	1,364,000	1,339,152	98%

1) Values are reflected at the system level.

2) Values represent the annual MW and MWH savings associated with the December 2019 month end participation.

3) At month-end December 2019, single-family participation was 1,183,442, while multifamily participation was 155,710.

D. Qualitative Analysis

As customers receive subsequent reports and learn more about their specific energy use and how they compare to their peer group, their engagement increases. The report then provides tools in the form of targeted energy efficiency tips with actionable ideas to become more efficient. Program participants are encouraged to contact the Company with their questions, comments and report corrections. Report corrections continue to generate the largest number of inquiries. Customers wishing to be removed from the Program represent 0.03% of single-family Program participants and .01% of multi-family Program participants.

My Home Energy Report

Highlights

In 2019, the program launched into the Duke Energy Mobile App. Participants in the MyHER program are now able to see their usage comparison and disaggregation in the mobile app. With the deployment of AMI meters throughout DEC, the program began sending AMI data to Tendril. Customers with AMI meters can see their interval energy usage on the MyHER interactive experience. In 2019, the program also launched new AMI usage charts on the eHERs which show customers the difference in average weekly usage by hour from one month to the next.

E. Marketing Strategy

The Program is marketed on the reports themselves by referring customers to the program website for additional information, Frequently Asked Questions (“FAQs”) and contact resources. The MyHER Interactive portal is marketed by email campaigns as well as in the printed report.

In 2019, the program launched several email and on-report marketing campaigns to further awareness of the interactive portal. These campaigns resulted in an increase of over 56,900 customers enrolling in the interactive portal.

F. Evaluation, Measurement and Verification

The process and impact evaluation report, combined with DEP, was completed and is scheduled for completion in the third quarter of 2019 and presented to the Carolinas Collaborative in the Second Quarter 2019.

As is typical with MyHER evaluations, the impact evaluation consisted of a billing analysis to determine the consumption differences between the treatment group and the control group. A summary of results include verified impacts of 248 kWh per participant. Due to the nature of the evaluation methodology, these impacts are inherently net impacts.

For the process evaluation, recommendations and opportunity areas included continuing the practice of simultaneous control and treatment assignment, limited to once or twice per year; continuing to increase awareness of MyHER Interactive; keeping an eye on effective change management; and continue prioritizing the structuring of the program processes and schedules

Energy Assessments

A. Description

The Home Energy House Call Program (“Program”) is offered under the Energy Assessment Program. Duke Energy Carolinas, LLC (the “Company”) partners with several key vendors to administer the Program.

The Program provides a free in-home assessment performed by a Building Performance Institute (“BPI”) certified energy specialist and designed to help customers reduce energy usage and save money. The BPI-certified energy specialist completes a 60- to 90-minute walk through assessment of a customer’s home and analyzes energy usage to identify energy savings opportunities. The energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. The customer also receives a customized report that identifies actions the customer can take to increase the home’s efficiency. Examples of recommendations might include the following:

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

In addition to a customized report, 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 energy efficiency lighting, a low-flow shower head, low flow faucet aerators, outlet/switch gaskets, weather stripping, and an energy saving tips booklet.

Audience

Eligible Program participants are the Company’s residential customers that own a single-family residence with at least four months of billing history and central air, electric heat or an electric water heater.

B & C. Impacts, Participants and Expenses

Energy Assessments¹

<i><u>\$ in millions, rounded</u></i>	Vintage 2019	Vintage 2019	% of
	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$4.2	\$4.4	105%
Program Cost	\$3.0	\$3.2	107%
MW	1.0	0.9	91%
MWH	6,542.9	7,886.9	121%
Units	34,304	61,692	180%

1) Values are reflected at the system level.

2) Units represent number of measures, and do include additional LEDs.

D. Qualitative Analysis

Highlights

The Company continues with a multi-channel approach which includes Duke Energy website pages, website banners, online services banner, paid search campaigns, Facebook, email, bill inserts, bill messages, direct mail, and customer segmentation to reach customers with a high propensity to participate. Examples of online, bill inserts and direct mail promotions are available in the appendix.

Energy Assessments

Program staff explores other channels for marketing campaigns to reach the target audience and maximize both program performance as well as customer experience.

Vendors, partners and the team at Duke Energy collaborate regarding marketing initiatives, future scheduling, availability, routing, targeting, backlog, etc. to drive efficient operations as well as customer satisfaction.

Through December 2019, the program conducted 10,268 assessments and installed 45,710 additional LEDs. program continues to focus on maximizing the number of measures installed as well as cross-promoting other Duke Energy programs and offerings.

Enhancements to the program in 2019 include a continuing focus on cross promotion of other programs and integration of in-field referrals for FindItDuke, upgrading showerheads to chrome, implementing thermal imaging technology, testing handheld showerheads, removing the four-month usage eligibility requirement and performing route optimization updates.

Potential Changes

Some program enhancements to increase the effectiveness of the Program being considered include the following:

- Continuing to optimize the online scheduling tool to enhance the customer experience
- Upgrading free measures to include pipewrap and additional bathroom aerators where relevant.
- Introducing upgradeable measures in field such as hand-held showerheads, smart thermostats, specialty bulbs, and blower door option
- Evaluating the incentive offerings to maximize savings and impacts as well as customer acceptance
- Including townhomes/condos for audit eligibility
- Implementing post audit follow up with reminders of recommendations/referrals.

E. Marketing Strategy

Program participation continues to be driven through a multichannel approach including targeted mailings to pre-qualified residential customers, bill inserts, online promotions and online video. For those who elect to receive offers electronically, email marketing continues to be used to supplement direct mail. Information about the Program was included in the My Home Energy Report distributed in January and July. The Program management team continues to explore additional channels to drive awareness such as social, event marketing and other cross-promotional opportunities. The creative team continues to drive engagement and interest in the program based on online survey results and enrollment. Core messaging remains simple and focused on key benefits—a free energy assessment from Duke Energy can help save energy and money while also increasing comfort and it only takes three easy steps (You Call, We Come Over, You Save).

Home Energy House Call program information and an online assessment request form are available at www.duke-energy.com.

F. Evaluation, Measurement and Verification

The next evaluation for the program is tentatively scheduled for a late fourth quarter 2020 delivery date. It is anticipated that the evaluation will consist of a billing analysis that will compare the consumption of program participants to future program participants. Engineering estimates for the HEHC kit measures will also be conducted to provide insight into the behavioral impacts achieved through the program and to provide impacts for the Additional Bulbs provided to program participants. Participants surveys will be used to determine in-service rates and determine free ridership at the measure level.

The process evaluation will consist of participant surveys which will identify barriers to participation, improve program processes and assess overall participant satisfaction.

Energy Efficient Appliances and Devices

A. Description

The Energy Efficient Appliances and Devices program (“Program”) offers a variety of measures to eligible Duke Energy Carolinas, LLC (the “Company”) customers to facilitate a reduction in their energy consumption. The Program includes offers for lighting measures, pool pumps, heat pumps water heaters, and water measures.

Free LED Program

The Free LED (Light Emitting Diode) program is designed to increase the energy efficiency of residential customers by offering customers 9 watt A19 LEDs to install in high-use fixtures within their homes.

The LEDs are offered through multiple channels to eligible customers, including an on-demand ordering platform which enables eligible customers to request LEDs and have them shipped directly to their homes.

The program consists of two types of eligible customers:

1. Customers who have not yet met or exceeded the Duke Energy bulb (CFL or LED) limit of 15. These customers have the option to choose kits in quantities of 3, 6, 8, 12, and 15 bulbs. Available order quantities presented are dependent on past campaign participation (i.e., coupons, Business Reply Cards (“BRCs”) and other Company programs offering lighting).
2. Customers who have met or exceeded the 15-bulb limit (CFL or LED) but 5 years have passed since their shipment dates. Depending upon past order quantities, these customers could have the option to order bulbs in quantities of 6 or 12.

Customers have the flexibility to order and track their shipments through four 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. The IVR is designed to handle requests for both English- and Spanish-speaking customers. Customers may easily validate their accounts, determine their eligibility and order their LEDs over the phone.
- 2) The Program’s Web Site: Customers can go online to order LEDs, check their order status, see eligibility requirements and view frequently asked questions.
- 3) My Account: Once enrolled and authenticated in My Account, eligible customers will have the ability to order LEDs, check their order status and view frequently asked questions.
- 4) Duke Energy Mobile App: Once a customer downloads and authenticates their account on the mobile app, if eligible, the customer will see a “card” within the app offering the program. Like the other channels, customers have the ability to track order status and view FAQs.

Specialty Lighting

The Duke Energy Savings Store (“Store”) is an extension of the on-demand ordering platform enabling eligible customers to purchase specialty bulbs and have them shipped directly to their homes. The Store launched on April 26, 2013, and offers a variety Light Emitting Diodes lamps (“LEDs”) including reflectors, globes, candelabra, 3-way, dimmable and A-line type bulbs. The incentive levels vary by bulb type, and the customer pays the difference. Various shipping promotions are run throughout the year, ranging from free to a reduced flat rate price.

The maximum number of incented bulbs the Company provides is 36 per account. However, customers may choose to order additional bulbs without the Company’s incentive.

Energy Efficient Appliances and Devices

In 2018, the program added smart thermostats, smart strips, & water products. Customer purchase limits are as follows:

- Smart thermostats, 2 total
- Water measures, 3 total
- Smart Strips, 4 total

In 3Q of 2019, the program added the following additional energy efficient products:

- LED fixtures (direct wires, portable, & outdoor photocell), limit 8 total
- Small appliance, dehumidifiers & air purifiers, limit 2 each total

Customers can check eligibility and shop for specialty bulbs through four separate channels.

- 1) The Program Web Site: Customers can access the store via the program's public webpage on DukeEnergy.com. By clicking the "Shop Now" button, customers move to the store where they can purchase specialty bulbs. Frequently asked questions are available to help customers learn more about the program and the sustainability benefits of using LED lighting.
- 2) My Account (formerly OLS): Customers enrolled in the Company's OLS or My Account may visit the Store and purchase specialty bulbs. Upon login, eligible customers are intercepted with the Store offer. Customers can select "Shop Now" or "No Thanks." Additional links and promos within OLS also prompt customers to access the Store.
- 3) Phone Ordering: Customers can call a toll-free phone number provided on all promotional pieces for the program and place their orders over the phone directly with the programs third party vendor.
- 4) On occasion, Duke Energy provides customers with a mail-in option for placing an order. Direct mail campaigns offer specially priced bulb bundles with the option to order these bundles online, by phone or with a postage paid return mailer.

The Store is managed by a third-party vendor, Energy Federation Inc. ("EFI"). EFI is responsible for maintaining the Store website, fulfilling all customer purchases, supporting the program call center, and recommending products. The store's landing page provided information about the store, product offerings, highlights promotions, account information and order history. Support features include a toll-free number, chat, package tracking and frequently asked questions.

Educational information is available to help customers with their purchase decisions. This information includes videos and documents that speaks to how the customer can reduce their energy usage while maintaining comfortable atmosphere within their home.

Product pages include application photos, product images, product specifications, purchase limits, and program pricing. Customers may place items in their shopping carts to purchase later. Customers can pay for their purchases with a credit card or by check.

Benefits of the four distinct channels for the Savings Store include the following:

- Improved customer experience
- Advanced inventory management
- Simplified program coordination
- Enhanced reporting
- Increased program participation
- Reduced program costs
- Quick and convenient
- Discounted pricing

Energy Efficient Appliances and Devices

Retail Lighting

The Retail Lighting Program's primary objective is the reduction of electric energy consumption and peak demand through increased awareness and adoption of energy-efficient lighting technologies. The program partners with retailers and manufacturers across North and South Carolina to provide price markdowns on customer purchases of efficient lighting. The product mix includes Energy Star-rated standard, reflector, and specialty LEDs and fixtures. Participating retailers include a variety of store types, including Big Box, DIY, and discount stores.

The program promotes customer awareness and the purchase of program-discounted products through a range of marketing and outreach strategies, including in-store collateral and events, bill inserts, direct mail and email marketing, mass media advertising, online advertising, and community events. The program also provides training to store staff to enable better customer education at the point of purchase. Ensuring customers are purchasing the right bulb for the application through proper customer education is imperative to obtain high satisfaction with lighting products and subsequent purchases.

Water Measures

The Save Energy and Water Kit Program ("SEWK") launched in 2014. The Program is designed to increase the energy efficiency of residential customers by offering customers energy efficient water fixtures and insulating pipe tape for use within their homes.

The SEWK program is offered through a selective eligibility process, enabling eligible customers to request a kit and have it shipped directly to their homes. Customers owning and living in a single-family home with an electric water heater and who have not received similar measures through another Company-offered energy efficiency program are eligible for the program. Kits are available in two sizes for homes with one or more full bathrooms and contain varying quantities of shower heads, bathroom aerators, a kitchen aerator and insulating pipe tape. Program participants are eligible for one kit shipped free of charge to their homes. Also, customers are able to upgrade the showerhead(s) in the kit from a standard showerhead to either a wide pattern or wand showerhead at low cost.

Customers are pre-screened based on the eligibility requirements. Marketing channels include both a direct mail business reply card ("BRC") and direct email. Customers receiving the BRC may choose to return the BRC, navigate to a redemption website listed on the card, or call a toll-free number to take advantage of the offer. Customers receiving a direct email simply click on a redemption link to redeem the offer online. Upon receiving the order from the customer through one of the methods above, EFI ships the kit to the customer. Due to the unique eligibility requirements of this program, BRCs and direct email are the only two methods being used to solicit customers for participation.

High Efficiency Pool Pumps

The High Efficiency Pool Pumps measure ("Pool Energy Efficiency Program") is designed to encourage the purchase and installation of energy efficient variable speed pool pumps for residential in-ground swimming pools. Eligible customers receive an incentive of \$300 for the replacement of an eligible single-speed pool pump with a new Energy Star-certified variable speed pump. New swimming pool construction is also eligible for the rebate. The program is marketed through a network of participating contractors ("Trade Allies") that interface directly with the customer, as well as through various marketing channels such as direct mail, email, company website, bill inserts and other customer communications. Eligible customers include single-family, owner-occupied residential customers with an in-ground pool in the Duke Energy Carolinas service territory. Builders of single-family residences are eligible for new residence construction that includes an in-ground swimming pool. In late 2017, this measure was moved to the Residential Smart Saver® Energy Efficiency Program (previously known as HVAC EE).

Energy Efficient Appliances and Devices

High Efficiency Heat Pump Water Heater

The high efficiency heat pump water heater measure is designed to encourage the installation and adoption of heat pump water heaters. Eligible customers receive an incentive of \$350 for the replacement of an existing electric water heater with an Energy Star-certified heat pump water heater having an Energy Factor (“EF”) rating of 2.0 or higher. The program is marketed through a network of participating contractors (“Trade Allies”) that interface directly with the customer, as well as through various marketing channels such as direct mail, email, company website, bill inserts and other customer communications. Eligible customers include single-family, owner-occupied residential customers with electric water heating in the Duke Energy Carolinas service territory. Builders of single-family residences that include an eligible heat pump water heater are also eligible for the rebate. In late 2017, this measure was moved to the Residential Smart Saver® Energy Efficiency Program (previously known as HVAC EE).

Audience

Customers who meet the Program eligibility requirements.

B & C. Impacts, Participants and Expenses

Energy Efficient Appliances and Devices¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$52.1	\$102.1	196%
Program Cost	\$21.7	\$41.4	190%
MW	16.7	31.8	190%
MWH	97,320.5	187,351.7	193%
Units	3,997,670	9,893,466	247%

1) Values are reflected at the system level.

D. Qualitative Analysis

Free LED Program

Highlights

The program results were strong in 2019. Overall, over 451,000 orders were placed accounting for 5.6 million bulbs.

From an order channel perspective, the IVR intercept was the ordering channel that accounted for the most orders (45%). This was followed by the My Account authenticated portal accounting for 30% of orders in 2019 the Duke Energy public website with 24% of orders while the program’s newest channel, the Duke Energy Mobile App rounded out the rest of the order channel splits accounting for 1% of orders.

Issues

Analyzing customer data and finding ways to effectively market to non-participating customers is the primary challenge of this program.

Potential Changes

The Free LED program is scheduled to discontinue in Duke Energy Carolinas in 2020 as a result of potential efficiency standards for general service bulbs that may be imposed as a part of the Energy Independence and Security Act (EISA). This standard change legislation will diminish both the impact of the program and its cost effectiveness, making it, therefore, no longer viable for the company to offer it. Although, at this time, there is still uncertainty as to how and when this legislation will be imposed, Duke Energy plans to move forward with its sunset strategy. The Company will work collaboratively with the implementation vendor to manage inventory and process pipeline orders efficiently during this time.

Energy Efficient Appliances and Devices

Specialty Lighting

Highlights

The Online Savings Store, provides an ecommerce platform that allows customers to purchase a variety of energy efficient products, including LEDs, smart thermostats, smart strips and more, at any time. Over 43,578 orders were placed during 2019 resulting in the delivery of over 331,095 bulbs; 11,724 smart thermostats; 3,553 smart strips; 220 water products, 639 LED fixtures have been delivered to customers. Over 99 percent of customers accessed the online saving store via the public website, while 1 percent accessed by logging into their MyAccount.

Issues

Educating and bringing awareness to the variety of products in the Store to eligible customers is the program's primary issue.

Potential Changes

Upgrading the entire site to improve the overall customer shopping experience and enhance certain features is planned for 2020.

Retail Lighting

Highlights

In 2019, the program moved a total of 3,476,442 measures, including 2,404,709 LEDs and 1,071,733 fixtures into customers' homes.

The DEC Energy Efficiency Program had 9 lighting retail channels actively participating in 2019. While the top three retail channels account for 70% of the program sales, all retail channels are important in that they allow access to the program for a widely diverse and geographically spread population of DEC customers. Locations are selected to ensure that the Program reaches 90% of customers within 30 miles of a participating retail location.

The Program operated efficiently with 86.77% of overall Program costs going directly to customers in the form of incentives. Most of the remaining Program costs (12.92%) were spent on implementation and administration of the Program. The remainder of costs, less than 1%, were spent on marketing and labor.

Issues

No issues are known at this time.

Potential Changes

The Program will continue to evaluate the market and adjust products and incentive levels as necessary, focusing on specialty applications and strategically targeting underserved customers through select channels and events.

Save Energy and Water Kit Program

Highlights

In 2019, the program distributed over 409,000 measures. In 2Q 2019, the program enhanced the online ordering process to allow customers to upgrade the showerhead(s) in the kit from a standard showerhead to a wide format or wand showerhead. Online redemptions continue to grow and in 2019, accounted for 40% of all redemptions. Of customers that redeemed the offer online, 34% chose to upgrade their kit to either a wide format or wand showerhead.

Energy Efficient Appliances and Devices

Issues

The Company continues to analyze data from non-respondents to the BRC offer to identify opportunities to increase the adoption rate. The Company also continues to review customer satisfaction surveys to identify opportunities for improvement in service rates and overall customer satisfaction.

Potential Changes

The program continues to review the kit components to identify new measures that would provide customers with better product choices.

High Efficiency Pool Pumps

Highlights

The Company partnered with several wholesale distributors across North and South Carolina to serve as distribution channels for program awareness and to develop the Trade Ally Network. Trade Allies are important to the program's success because they interface with the customer during the decision-making process. Several training classes were conducted throughout the jurisdiction to continue educating the trade allies on the advanced technology variable speed as well as on how to sell the technology to the end user.

Issues

Customer buy-in and the Trade Ally network are vital to the success of the program. Educating contractors on emerging technologies and the value the technologies provide customers is critical in growing the trade ally network and their willingness to promote the program. Additionally, many distributors are requesting point-of-sale rebates as they do not want to deal with submitting rebates or handling the additional paper work requirements for the Program. The Company is currently working to determine if a technology can be put in place to accommodate distributor needs and boost participation.

High Efficiency Heat Pump Water Heater

Highlights

The Company has partnered with manufacturers and national retailers such as General Electric and Lowes to increase program awareness and maximize in store purchases. The program continued recruiting plumbing contractors and currently registered HVAC companies to increase coverage across the jurisdictions and maximize participation. The Program conducted training classes throughout the jurisdiction to educate the Trade Allies on the advanced technology offers for reducing energy consumption as well as on how to sell the technology to the end user.

Issues

Educating and bringing awareness of the program to both customers and potential contractors has been challenging. Educating contractors has been addressed through additional Trade Ally marketing, recruitment and training but remains slow due to the re-emerging technology of heat pump water heaters and their willingness to adopt more technical services. Customer awareness is being addressed through program design and marketing tactics but will be primarily targeted as a joint effort with manufactures and national retailers. Their willingness to co-brand and the frequency of campaigns will be critical in reaching our customer base.

E. Marketing Strategy

Free LED Program

Energy Efficient Appliances and Devices

The overall strategy of the program is to reach residential customers who have not adopted LED lighting. The Company educates customers on the benefits of LEDs 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. The Free LED and Specialty Lighting offers utilize the same ordering platform so the Company can promote both lighting offers efficiently and bring awareness to non-adopters.

From an outreach standpoint, the program relies on our My Account intercept, a pop up that launches as a customer logs into the My Account authenticated portal to pay their bill or view account information, to generate interest in the program. A customer can click “continue” to move to the Free LED ordering page. In 2019, approximately 30% of orders came as a result of this intercept. In addition to the My Account intercept, the program leveraged it’s IVR Intercept that presents when a customer calls into the Duke Energy customer service line and goes through one of three flows—Billing Questions, Meter Read, Make a Payment. After authenticating, if eligible, a message will present that they are eligible for the offer and allowing them to place an order and then be placed back into the flow of their intended call. Overall, there were 123,563 IVR intercept orders out of 456,509 times the intercept presented, translating to a 27% take rate.

In addition to the intercepts, the program also solicited customers via emails and direct mail pieces. Such pieces usually targeted New Customers (typically yielding an 18% take rate) and customers who became re-eligible for the Free lighting program after 5 years passed since their Free CFL order (typically yielding a 16% take rate).

A sample of program collateral and emails (which cross promote Specialty Lighting) are available in the Appendix.

Specialty Lighting

Since the launch of the Store, the marketing efforts include the following:

- bill messages
- bill inserts
- email campaigns
- direct mail
- and other digital media channels

Examples of the marketing pieces can be found in the Appendix. Awareness and education will continue to be a focus in collateral messages to eligible customers, as well as highlighting great pricing and other promotional offerings such as free shipping.

Retail Lighting

The program’s marketing efforts for 2019 include the following:

- Point of Purchase materials at participating retailer locations
- Duke Energy and Program website
- General Awareness Campaigns
 - Bill Inserts
 - Email
 - Online Advertising
- Advertised events at key retailers including:
 - Direct mail
 - Email
 - In-Store materials (fliers, bag stuffers, posters, banners, etc.)
- Community outreach events (national night out, cultural events, etc.)

Energy Efficient Appliances and Devices

These marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation. Additionally, marketing efforts related to in-store events are designed to motivate customer participation.

Save Energy and Water Kit Program

The overall strategy of the program is to reach residential customers who have not adopted low flow water devices. In 2020, the program is exploring the use of bilingual messaging to reach Spanish-speaking customers.

Both direct mail marketing in the form of BRCs and direct email are the current marketing channels being used by this program in the Carolinas. With the growth of online ordering and email as a marketing channel, the paper and cost associated with traditional mail solicitations continues to decline.

High Efficiency Pool Pumps

The Company implemented several customer marketing campaigns in 2017 which leveraged channels such as email, paid search, display ads, direct mail and social media to build awareness of the program. Other channels such as co-branded retail displays with selected distributors created awareness of the program. The program's messaging was built around the benefits of the product including payback, annual savings and cleaner pools.

High Energy Efficiency Heat Pump Water Heater

The Company implemented several customer marketing campaigns in 2017 which leveraged channels such as bill inserts, paid search, and display ads to build awareness of the program. Other channels such as co-branded retail displays with selected manufacturers and national retailers created awareness for the program.

F. Evaluation, Measurement and Verification

Residential Lighting

No additional EM&V activities are planned for the Free LED Program due to future sunseting of the program.

Future evaluations for the DEC Online Saving and Marketplace Program are tentatively scheduled for a final report date in the fourth quarter of 2021, subject to participation levels for the non-lighting retail and marketplace measures.

Heat Pump Water Heaters/Pool Pump

The evaluation for Heat Pump Water Heater and Variable Speed Pool Pump measures are scheduled for tentative delivery in mid-year 2022 for Program Year 2021. The extended timeframe is to ensure sufficient participation in the referral component of the program.

Save Energy & Water

Evaluation work commenced in 2019, with the final evaluation report tentatively scheduled for 2nd Quarter 2020.

Energy Efficient Appliances and Devices

OFFICIAL COPY

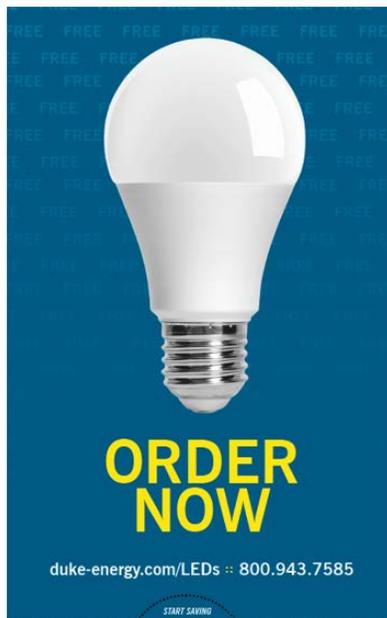
Feb 25 2020

G. Appendix

Free LED Program – Direct Mail New Customer Letter:



Free LED Direct Mail Campaign:



Energy Efficient Appliances and Devices

OFFICIAL COPY

Feb 25 2020

Free LED Program – Email Campaign:

Online Savings Store

;

Energy Efficient Appliances and Devices

OFFICIAL COPY

Feb 25 2020

Trim your energy budget in 2019.



Lighten the load with an extra **19% off** LED bulbs.

16¢ LEDS ARE A SLAM DUNK!



Shop by April 8.

DUKE ENERGY.

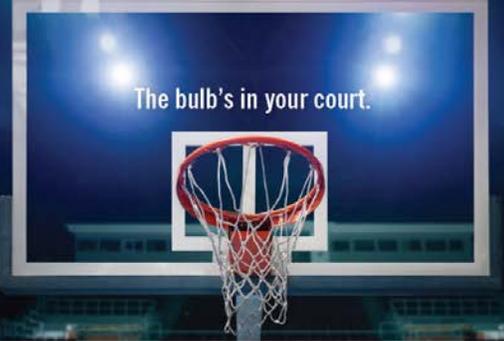
Online Savings More
3729 | 400 S. Tryon Street
Charlotte, NC 28202

PRECORTEX
CORPORATION
1155 PINEHURST
WAY
PINEHURST, NC 28388

<<FirstName LastName>>
<<Street address>>
<<City, State ZIP>>

BUILDING A SMARTER ENERGY FUTURE™

The bulb's in your court.



Dunk 16¢ bulbs in your basket and get FREE shipping!
See promo code inside.

Energy Efficient Appliances and Devices

OFFICIAL COPY

Feb 25 2020

-

-

Retail Lighting General Awareness Email:

Energy Efficient Appliances and Devices

Use our store locator to shop for deals on LEDs. [Trouble viewing? View all locations.](#)

DUKE ENERGY

FIND A STORE NEAR YOU.

Get LED bulbs for up to 75% off.

Saving energy and money for years to come is as simple as changing a lightbulb. Making the switch to energy-efficient LED bulbs is easier than ever with discounts of up to 75% off from Duke Energy at select retail locations.

[FIND A STORE](#)

Here are a few reasons to make the switch:

<p>SAVE ENERGY They use up to 90% less energy than standard bulbs.</p>	<p>SAME BRIGHTNESS They're as bright as standard bulbs but use less energy.</p>
<p>LONG-LASTING They last up to 15x longer than standard bulbs.</p>	<p>DEEP DISCOUNTS They're up to 75% off at a store near you.</p>

BUILDING A SMARTER ENERGY FUTURE®

[f](#) [t](#) [in](#) [v](#) [@](#)

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

OFFICIAL COPY

Feb 25 2020

Retail Lighting In-Store event promotion:

Energy Efficient Appliances and Devices

Want to save on lighting?

JUST SHOW UP.

Come to our event and save big on a variety of energy-efficient LEDs.

ONE DAY ONLY

SATURDAY, JUNE 22
9 a.m. – 1 p.m.

Ace Hardware
3986 E. Galbraith Road
Cincinnati, OH 45236

DISCOUNTED PRICES
BROUGHT TO YOU BY



DUKE ENERGY.
BUILDING A SMARTER ENERGY FUTURE®

Did you know that each LED bulb can save you about \$80 in energy costs over its lifetime? Come to this **one-day-only event** to get a variety of energy-efficient LED bulbs for as low as \$1. Limit 12 bulbs per customer.*



Get advice from lighting specialists on **how to lower energy use.**



Bring this postcard for **special giveaways.***



Shop for a wide variety of **discounted LED bulbs.**

*While supplies last.

The barcode to the left is embedded with your address and account information. This system ensures your privacy and allows us to process your order quickly by scanning the barcode.

©2019 Duke Energy Corporation 191502-Cincinnati 5/19





PRESORT
STANDARD
U.S. POSTAGE
PAID
CITY, ST
PERMIT NO. 0000

Retail LED Lighting Program
ST29 | 400 S. Tryon Street
Charlotte, NC 28202

<<Account Name>>
 <<Mailing Street>>
 <<Mailing City, Mailing State Zip/Postal Code>>

OFFICIAL COPY

Feb 25 2020

Energy Efficient Appliances and Devices

OFFICIAL COPY

Feb 25 2020

DUKE ENERGY | Smart Saver®

Save up to \$640 next summer!

Pool expenses sending you off the deep end?

Act now, and you could find yourself swimming in extra cash next summer.

As a Duke Energy customer, you can save up to \$640* in the first year when you upgrade to a quieter, more efficient pool pump that helps make your pool cleaner, with less maintenance required.

START SAVING

An ENERGY STAR® certified variable-speed pool pump:

- Gets you a \$300 rebate after you install, using a participating contractor.
- Pays for itself in less than two years.
- Saves you up to \$340 each year in energy costs.

High Efficiency Heat Pump Water Heater National Retailer Display

Enjoy easy summertime savings.

Want to save up to \$640 next summer? We can help.

High Efficiency Pool Pump Facebook Posting

Verizon LTE 10:52 AM 87%

Search

What's on your mind?

Duke Energy Sponsored · v

Save up to \$640 this summer. Upgrade your pool pump today and splash into savings.

Get \$300 cash and up to \$340 in energy savings.
www.duke-energy.com/Splash

59 14 Comments 41 Shares

Like Comment Share

Amy Burgess Scharnhorst with Aryn Burress and Suzanne Colwell Burress

News Feed Requests Messages Notifications More

Cut water heating costs in half.

Save big when you upgrade to a heat pump water heater.

LOWER BILLS
Save up to \$250 on water heating costs**

REBATE
Qualify for a \$350 mail-in rebate from Duke Energy***

Get your \$350 cash rebate in three easy steps:

- STEP ONE: Make your selection.** Select and purchase the ENERGY STAR® model that fits your needs.
- STEP TWO: Installation.** Schedule an installation date with one of our participating contractors.
- STEP THREE: Get your cash.** Submit your rebate application.

**Cost savings is comparing a heat pump hot water heater to a standard 50-gallon electric water heater.
***Heat pump water heater must be ENERGY STAR qualified.

For more information, call 866.507.3496 or visit duke-energy.com/SaveBig

Lowie's is not responsible for the fulfillment of the rebate.

©2014 Duke Energy Corporation 141363 9/14

DUKE ENERGY | Smart Saver®

High Efficiency Heat Pump Water Heater Digital Media

Energy Efficient Appliances and Devices

Water heater over
10 years old?

Don't wait until it fails.

Get \$350 when you upgrade
your water heater.

[Find a contractor >](#)



Residential –Smart Saver® Energy Efficiency Program

A. Description

The Residential – Smart Saver® Energy Efficiency Program (“Program”) offers measures that allow eligible Duke Energy Carolinas, LLC (the “Company”) customers to reduce energy consumption in the home. The Program provides incentives for the purchase and installation of eligible central air conditioner or heat pump replacements in addition to Wi-Fi enabled Smart Thermostats when installed and programmed at the time the heating ventilation and air conditioning (HVAC) system is installed. Program participants may also receive an incentive for attic insulation, air sealing, duct sealing, variable speed pool pumps, and heat pump water heaters.

Program staff is responsible for establishing relationships with HVAC and home performance contractors (“Trade Allies”) who interface directly with residential customers. These Trade Allies market and leverage the Program to assist with selling these products and services to customers. Once the Trade Ally has sold the service/product, they complete and submit incentive applications on behalf of the customer. An incentive is disbursed to the customer after the application has been approved and processed.

Duke Energy contracts with a third-party vendor for application processing, incentive payment disbursement, and Trade Ally and customer call processing.

Audience

The Company’s residential customers that meet the eligibility requirements of the Program may participate.

B & C. Impacts, Participants and Expenses

Residential - Smart Saver Energy Efficiency Program¹

<i>\$ in millions, rounded</i>	Vintage 2019	Vintage 2019	% of
	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$4.5	\$7.1	157%
Program Cost	\$4.8	\$7.4	154%
MW	1.3	2.0	157%
MWH	5,130.7	7,329.1	143%
Units	9,630	25,852	268%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

The Company’s tiered incentive structure continues to receive a positive reaction from customers as well as Trade Allies. Reporting continued to show that the increased incentive amounts for higher SEER equipment has encouraged customers to install higher efficiency equipment as well as having it managed with newer thermostat technologies.

The program will continue to emphasize best practices and to build support by offering additional training to the Trade Allies and modifications to program requirements when needed. Program staff coordinated and assisted in 3 onsite field trainings and 2 webinars during 2019 as well as 2 contractor appreciation events.

Customer engagement continues to be a focus of the Program especially through the “Find It Duke referral platform that positions Duke Energy as a trusted advisor by providing free home improvement referrals through a premier network of qualified contractors who deliver exceptional customer service.

Residential –Smart \$aver® Energy Efficiency Program

In September 2019, major enhancements to the Find it Duke website were completed that expanded the services offered and provided an improved customer experience. The Find it Duke referral channel successfully generated over 15,668 customer referrals during 2019. Customers whose referral generated a sale for the Trade Ally received a survey to rate their experience. The Referral Network maintained a contractor rating of 4.75 out of 5.0 stars during 2019.

Issues

The buy-in and participation of the Trade Ally network is vital to the success of the Program. Trade Allies are important to the Program's success because they interface with the customer during the decision-making event.

E. Marketing Strategy

Promotion of the rebate Program is targeted to HVAC and home performance contractors as well as pool and plumbing contractors that install variable speed pumps and heat pump water heater technology.

Program information to educate customers about the Program and encourage participation and Trade Ally enrollment links are available on the Program's website. Increasing the overall awareness of the Program and the participation of Trade Allies ensures more customers are considering the benefits of the Program at the time of purchase.

Various customer marketing campaigns during 2019 leveraged channels such as TV, radio, social media and email messaging in order to build awareness of the referral service. Other marketing efforts, such as a paid search and co-branded special offer campaigns with eligible referral contractors, manufacturers, and national retailers, also created awareness for the channel.

F. Evaluation, Measurement and Verification

No evaluation activities were completed in 2019. The next evaluation for the program will commence in second quarter of 2021 with a completed report scheduled for Second Quarter 2022.

Residential –Smart Saver® Energy Efficiency Program

G. Appendix

Residential HVAC and Heat Pump Water Heater– Referral Special Offer Campaigns

FIND it DUKE | Backed by **DUKE ENERGY**

❄ Find cooling.
👉 Find savings.
Find It Duke.

Enjoy **\$300 off** heating and cooling system upgrade.

Find It Duke wants to help you enjoy a more comfortable home. Get **\$300 off** when you upgrade to a 16 SEER or greater HVAC system. Plus, qualify to earn up to **\$450 in rebates** to help offset the cost of your system.

[GET OFFER](#)

Enter promo code: HVAC16SEER
Offer ends August 31, 2019.

BUILDING A SMARTER ENERGY FUTURE™

Download on the **App Store** | **GET IT ON Google Play**

Unsubscribe | Privacy Policy | www.duke-energy.com
Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

FIND it DUKE | Backed by **DUKE ENERGY**

It's Water Heater Savings Season.

Enjoy **\$100 off** a water heater upgrade.

Find comfort and savings. Get **\$100 off** any 50-gallon water heater replacement. Plus, get a **\$350 rebate** when you upgrade to an energy-efficient heat pump water heater.

Best of all, Find It Duke will provide a FREE referral to a qualified home improvement contractor in your area.

[GET OFFER](#)

Enter promo code: WHtrSAVE
Offer ends August 31, 2019.

BUILDING A SMARTER ENERGY FUTURE™

Download on the **App Store** | **GET IT ON Google Play**

Unsubscribe | Privacy Policy | www.duke-energy.com
Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

OFFICIAL COPY

Feb 25 2020

Residential –Smart \$aver® Energy Efficiency Program

OFFICIAL COPY

Feb 25 2020

Residential Pool Pump- Email Campaign

The graphic features the Duke Energy logo and 'Smart \$aver' branding at the top left. The main headline 'SAVE MONEY' is set against a blue background with a yellow pool ring. Below this, the text 'End-of-season savings on a new pool pump up to \$640.' is followed by a paragraph explaining the rebate and energy savings. A blue 'UPGRADE NOW' button is centered. The bottom section, titled 'Why upgrade to a variable-speed pool pump?', lists three benefits: saving up to \$340/year in energy costs, using less energy and making less noise, and requiring less overall maintenance. At the bottom, there are social media icons, app store download buttons, and a footer with 'BUILDING A SMARTER ENERGY FUTURE*' and website links.

DUKE ENERGY | Smart \$aver®

SAVE MONEY

End-of-season savings on a new pool pump up to \$640.

The time to upgrade to a variable-speed pool pump is now, before pool season ends. You'll save with a \$300 Duke Energy rebate, enjoy up to \$340 in annual energy savings and help keep your pool running at peak efficiency. Don't wait.

[UPGRADE NOW](#)

Why upgrade to a variable-speed pool pump?

- Saves up to \$340/year in energy costs.
- Uses less energy and makes less noise.
- Requires less overall maintenance.

Start saving now. Visit [FindItDuke.com](#) for a FREE referral to a pool pump contractor.

BUILDING A SMARTER ENERGY FUTURE*

[Subscribe](#) | [Privacy Policy](#) | [View In Browser](#) | [duke-energy.com](#)

HPWH Partnership - Email Campaign

The graphic has a green top section with a showerhead icon and the text '350 reasons to upgrade.' Below this, a yellow duck is shown. The main headline is 'Receive a \$350 instant rebate on a new heat pump water heater.' This is followed by a paragraph about the benefits of a high-efficiency heat pump water heater. A blue 'CLICK FOR REBATE' button is centered. Below the button are the Home Depot and Lowe's logos. The 'How does it work?' section is divided into three steps: Step 1 (Download your rebate coupon now), Step 2 (Visit your nearest Lowe's or Home Depot store), and Step 3 (Redeem your digital coupon at checkout for an instant \$350 savings). At the bottom, there is a 'Per ENERGY STAR' note and a disclaimer about Home Depot and Lowe's responsibility.

350 reasons to upgrade.

Receive a \$350 instant rebate on a new heat pump water heater.

It's the perfect time to upgrade to a high-efficiency heat pump water heater. Enjoy lower water heating costs, lower monthly electric bills and the lasting benefits of energy efficiency – a combined savings of up to \$600 within the first year.

Visit your nearest Lowe's or Home Depot to choose your qualifying model and redeem your \$350 instant rebate. Hurry, offer expires Dec. 31, 2019.

[CLICK FOR REBATE](#)

How does it work?

- STEP 1**
Download your rebate coupon now.
- STEP 2**
Visit your nearest Lowe's or Home Depot store.
- STEP 3**
Redeem your digital coupon at checkout for an instant \$350 savings.

For additional details about this program, visit [dukeenergy.store](#) or call [866.785.6209](#).

Per ENERGY STAR®, annual savings based on usage of a household of four. Duke Energy residential customers only.

Home Depot and Lowe's are not responsible for fulfillment of rebate and may not combine with all Home Depot and Lowe's offers. See terms & conditions at [duke-energy.com/home/products](#).

Residential –Smart Saver® Energy Efficiency Program

OFFICIAL COPY

Feb 25 2020

Social Ads

Duke Energy
Sponsored · 🌟

Just say Find It Duke and find exclusive rebates & offers on home improvement upgrades.

SAVE UP TO \$1,450

FINDITDUKE.COM
Find it Duke
FREE contractor referrals

LEARN MORE

Digital ads

AARP
Join Renew Help Member Benefits AARP Rewards Register Login

HOME & FAMILY
Your Home

7 Ways to Save When You Go Green

We bring you up to date on the best eco-friendly practices
by Nissa Simon, AARP | Comments: 5

Also on AARP

Creative: HPWH

Multi-Family Energy Efficiency Program

OFFICIAL COPY

Feb 25 2020

A. Description

The Multi-Family Energy Efficiency program (“Program”) provides energy efficient lighting and water measures to reduce energy usage in eligible multi-family properties. The Program allows Duke Energy Carolinas, LLC (the “Company”) to utilize an alternative delivery channel which targets multi-family apartment complexes. The measures are installed in permanent fixtures by Franklin Energy, the program administrator. Franklin Energy oversees all aspects of the Program including outreach, direct installations, and customer care.

The Program helps property managers save energy by offering energy efficient lighting and water products. The Program offers LED lighting measures including A-lines, globes, candelabras, recessed, and track bulbs, and energy efficient water measures such as bath and kitchen faucet aerators, water saving showerheads, and pipe wrap. Water measures are available to eligible customers with electric water heating. These measures assist with reducing maintenance costs while improving tenant satisfaction through lower energy bills.

The Program offers a service where Franklin Energy installs the lighting and water measures during scheduled visits. Crews carry tablets to keep track of which measures are installed in each apartment.

After installations are completed, Quality Assurance (“QA”) inspections are conducted on 20 percent of properties that completed installations in each month. The QA inspections are conducted by an independent third party. Any QA adjustments are provided to the Company to update participation records.

Audience

The target audience is property managers who have properties served on individually metered residential rate schedules. To receive water measures, apartments must have electric water heating.

Properties that have already been served by the Property Manager CFL program are only eligible for water measures and specialty LED bulbs. However, properties with CFL installations over 5 years old are eligible for all the new LEDs and water measures. Lighting measures are only installed in permanent lighting fixtures such as ceiling lights, recessed lighting, track lighting, ceiling fan lights, and bathroom vanity lighting.

B & C. Impacts, Participants and Expenses

Multi-Family Energy Efficiency¹

<i><u>\$ in millions, rounded</u></i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$9.6	\$11.9	124%
Program Cost	\$3.4	\$3.7	109%
MW	2.0	2.6	132%
MWH	19,846.4	24,086.2	121%
Units	342,660	493,307	144%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

Through December 2019, the Program completed installations at 293 properties, accounting for over 46,422 units. The Program installed 493,307 measures with lighting representing 72% of the measures and water measures representing the remaining 33%. In 2019, the Program successfully added new 4,000 Kelvin LED bulb options to the offering for A-line fixtures, which have been requested by property

Multi-Family Energy Efficiency Program

managers. In 2019 the Program successfully added 0.5 GPM bath aerators at the request of property managers.

Issues

There are no issues to report now.

Potential Changes

In early 2020, the Program is planning to add 1.25 GPM showerheads and review additional 4,000 Kelvin bulb types for addition to the program. Program Management continues to evaluate new energy efficient measures for addition to the program.

New technology enhancements are being implemented to increase the accuracy of recording the measures installed and the bulb wattages removed, to increase efficiencies with scheduling units, and to improve the tracking of new opportunities from both the direct installers and energy advisors.

E. Marketing Strategy

As program implementer, Franklin Energy is responsible for marketing and outreach to property managers in the Company's service territory. Marketing is primarily done through outbound appointment setting calls, industry trade events, and on-site visits to gauge initial interest in the program. The Program staff also utilizes local apartment association memberships to obtain access to contact information for local properties and attends association trade shows or events to promote the program. The Program was an exhibitor in the 2019 AANC Conference in Raleigh, NC and generated over 50 leads for the region.

A Multi-Family Energy Efficiency public website landing page is available for property managers to learn more about the Program. A program brochure and a frequently asked question sheet are available for download.

Other ways a property manager may learn more about this Program are through the MyDuke Portal, an online tool used to pay the utility bills of vacant units at their property. The MyDuke Portal presents a promo link that directs the user to the Program website for more information.

Once enrolled, Franklin Energy provides property managers with a variety of marketing tools to create awareness of the Program among their tenants. The tools include letters to each tenant informing them of energy efficient measures being installed and of when the installations are taking place. Tenants receive educational leave-behind brochures when the installation is complete. Feedback from both property managers and tenants is important for the Program's continued success. Property managers are provided with leave-behind materials about the program which also includes survey for them to complete and return. For tenants, the educational leave-behind brochure includes a satisfaction survey to return to Duke Energy. Online versions of both the Program Manager and Tenant surveys are also available.

After the installation, window clings are placed in strategic areas throughout the property, specifically in the common areas entry and on each residential building on site (to the extent applicable). Using the window cling ensures that the program and Duke Energy are recognized long after the installation has taken place.

Multi-Family Energy Efficiency Program

F. Evaluation, Measurement and Verification

The combined DEC/DEP EM&V evaluation began in April of 2018. The evaluation will determine the net annual energy and demand associated with the program participants between January 1, 2017, and May 1, 2018. The evaluator will use a combination of surveys, on site data collection, a lighting logger study, and engineering analysis to determine the impacts for the program.

The evaluator ultimately determined that the initial logger deployment was not representative of the population during the sample period. As a result of the evaluators conclusions, loggers were redeployed to a new set of participants more representative of the population. Completion of updated impacts, which will include the new logger deployment results is scheduled for the first quarter of 2020.

Multi-Family Energy Efficiency Program

Appendix

Program Brochure-

Updated to add Commercial Offerings partnership and new water measures

Multifamily Energy
Efficiency Program



Thank You for Participating in the Duke Energy Multifamily Energy Efficiency Program!

Together with your neighbors, you helped Duke Energy provide and install energy-saving products in your home. Doing so is good for the environment AND your power bill!

As a result of your participation, the average unit could see energy savings of around [\$\$\$] every year.*

Our community could save [XX] kilowatt-hours annually, which is the environmental equivalent to planting [XX] trees or taking [XX] cars off the road!



Please take Duke Energy's survey by scanning this QR code:



*Actual savings will vary by floor plan and usage.
©2019 Duke Energy Corporation

Multi-Family Energy Efficiency Program

FAQ for Property Managers

What does the install process look like?

On your scheduled installation days, our team will arrive at 8:45 a.m. to begin working by 9 a.m. A member of your staff will need to accompany our installers and handle keys throughout the installation process. The time spent in each unit varies depending on the layout and products being replaced. We will leave a flyer for each resident explaining what was installed and a survey providing an opportunity to give us feedback. It's that simple and that fast!

How do we qualify?

Your property's electric utility must be Duke Energy to qualify. Additional qualifications depend on several factors such as metering, existing products, and method for water heating. To see which offerings your property qualifies for, you will need to schedule a complimentary energy assessment with one of our Energy Advisors by calling 888.297.1671 or emailing dukeenergymultifamilyep@franklinenergy.com.

How much does it cost?

NOTHING! This program is part of many programs Duke Energy offers its customers from funds set aside to help reduce energy use. There are two parts to our program: residential (inside tenant units) and commercial (common areas). There are no limits on how many products we can install. Your Energy Advisor will go over your qualifications during the energy assessment.

What safety precautions should we know before installation?

As we are going through the units, if there are any unsecured pets or unattended minors, we will not be able to enter to perform the installation. During product installation, we ask that all small children be kept at a safe distance from the installers. The installers will provide further direction once on-site.

What is the next step?

Call 888.297.1671 or email dukeenergymultifamilyep@franklinenergy.com to schedule an appointment for an energy assessment.



Contact us today!

Phone: 888.297.1671 | Website: duke-energy.com/multifamily
Email: dukeenergymultifamilyep@franklinenergy.com

Multifamily Energy Efficiency Program



It's what's on the inside that counts. Our FREE energy-saving lightbulbs and water-saving devices can help your tenants save money.

This program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.
©2019 Duke Energy Corporation

Make that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.
©2019 Duke Energy Corporation



Start saving now with the latest FREE energy-saving products.



Multifamily Energy Efficiency Program

If you are a Duke Energy customer, your tenants may receive the following energy-saving products -- installed in each multifamily unit and qualifying common areas at no cost.

Standard, Globe, Candelabra, Recessed and Track LEDs



Use up to **90% less energy** and can save at least **\$80** over their lifetime in energy costs compared to traditional incandescent bulbs. A popular residential option, ENERGY STAR® light-emitting diodes, or LEDs, can be installed in bathrooms, track lights, ceiling fans, recessed lights and other high-usage permanent fixtures.

Exit Sign LEDs



Exit signs are necessary to keep us safe. We can help you save on operating and labor costs by replacing incandescent exit sign bulbs with LEDs.



See what other property managers had to say.

You guys got top marks
"I received the satisfaction survey and filled it out. You guys got top marks. I received a lot of compliments about how friendly and professional you all were. Thank you again for all that you did!"
- Asheville Property Manager

They were so polite and professional
"I just wanted to let you know that your team did a wonderful job installing the energy-saving products. They were so polite and professional, which made the residents feel more at ease with the installation. I really appreciate all the hard work that went into making this project run so smoothly. We are now officially energy efficient!"
- Raleigh Property Manager

The program has been a huge success and very much appreciated
"The thing that stood out most for me is your willingness to contact all property managers in my district. You took control of the program and scheduled each property efficiently and effectively, resulting in less work for each property. The program has been a huge success and very much appreciated by the management company, properties and our residents. Thank you for your hard work!"
- Durham Property Management Company

Bathroom and Kitchen Faucet Aerators



Use up to **55% less water** than traditional 2.2-gallon-per-minute (gpm) faucets, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.*

Outer ring allows for adjustable flow



*If water is heated by electricity, savings are not guaranteed.

Water-saving Showerheads



Use up to **40% less water** than traditional 2.5-gpm showerheads, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.*

Outer ring allows for adjustable flow



Hot Water Pipe Wrap



Reduces water and energy use by preventing heat loss while hot water travels through your building's pipes.*

This program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.
©2019 Duke Energy Corporation



Multi-Family Energy Efficiency Program

Sorry We Missed You
Door post-it



BUILDING A SMARTER ENERGY FUTURE®

Sorry We Missed You!

Today we stopped
by to install your
**free energy-saving
products**, but



**Don't worry—you can still get your
products! Simply contact your property
manager to find out how.**

Learn more at duke-energy.com/multifamily. Note that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.

©2019 Duke Energy Corporation

Multi-Family Energy Efficiency Program

OFFICIAL COPY

Feb 25 2020

Property Manager Direct Mail Piece



Start saving now with the latest
FREE energy-saving products.

Sign up today!

Phone 888.297.1671 | Website duke-energy.com/multifamily
Email dukeenergymultifamilyeep@franklinenergy.com



BUILDING A SMARTER ENERGY FUTURE®

Our **FREE** energy-saving lightbulbs
and water-saving devices can help
your tenants save money!



Address
City, ST ZIP XXXXX

Use less energy, help your tenants save money and receive **FREE** products throughout your property by signing up for the Duke Energy Multifamily Energy Efficiency program. Your multifamily property can receive a **FREE** energy assessment, plus **FREE** energy-saving products installed in each unit and qualifying common areas – at no cost:

- Standard, globe, candelabra, recessed and track LEDs
- Bathroom and kitchen faucet aerators
- Exit-sign LEDs
- Showerheads
- Hot-water pipe wrap
- Comparable assessments could cost \$1,000-\$3,000



Sign up today!

Phone 888.297.1671
Website duke-energy.com/multifamily
Email dukeenergymultifamilyeep@franklinenergy.com

Multi-Family Energy Efficiency Program

Case Study

MULTIFAMILY ENERGY EFFICIENCY PROGRAM CASE STUDY

Here's What They're Saying About Us

“The Duke Energy Multifamily program has been instrumental in reducing the cost of living in Bell communities, enhancing our environmental stewardship and differentiating our NC/SC properties in the marketplace. We look forward to a continued partnership with Franklin Energy and Duke Energy.”

– Wes Winterstein, Vice President, Ancillary Services, Bell Partners Inc.

ESTIMATED SAVINGS FOR RESIDENTS

Annual Electric Savings		Annual Electric Bill Savings	
1,015 kWh		\$107	
Value and Savings for Bell Partners and Its Residents Through 2018		Going Green Makes a Difference	
Annual Electric Savings	Value of Products and Energy Savings	So far Bell Partners and Duke Energy have delivered energy savings equivalent to:	Cars Taken Off the Road Trees Planted
2,771,664 kWh	\$434,089		314 37,653

DUKE ENERGY AND BELL PARTNERS ARE GOING GREEN!

To date, Bell Partners and Duke Energy have collaborated to make nine communities more energy efficient by replacing standard lighting with LED bulbs, replacing inefficient faucets and showerheads with water-saving products, and insulating hot water heater pipes. The cost to Bell Partners and its residents? Nothing!

In 2017 and 2018, Duke Energy provided and installed:

- \$152,000 worth of energy-saving products
- Over 26,000 LED lights
- Nearly 5,600 water-saving faucet aerators
- Over 1,800 energy-saving showerheads
- Nearly 14,000 feet of pipe insulation

Bell Partners residents can save an average of \$107 annually on their electric bill. The communities save ongoing O&M expenses. And with the help of Duke Energy, Bell Partners continues to be a leader in the green multifamily market.



BUILDING A SMARTER ENERGY FUTURE®



Power Manager®

A. Description

Power Manager® (“Program”) is a demand response program that cycles residential central air conditioning to ensure power reliability during high summer peak demand periods. Duke Energy Carolinas, LLC (the “Company”) installs a load cycling device near the outdoor unit of a qualifying air conditioner. This enables the customer’s air conditioner to be cycled off and on when the Company initiates a control event. During these events, the Company can perform cycling or full shed interruptions of participating customers’ air conditioning systems at any time to mitigate capacity constraints in the generation, transmission or distribution systems.

Program participants receive a financial incentive as a bill credit in the amount of \$8 per month from July through October (\$32 annually).

The customer’s air-conditioning system experiences no adverse impacts because the load control device has built-in safeguards to prevent the “short cycling” of the air-conditioning system. Cycling simply reduces the amount of time the air-conditioning system runs in a given period. Additionally, the indoor fan continues to run and circulate air during the cycling event.

Audience

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

B & C. Impacts, Participants and Expenses

PowerManager¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$60.8	\$69.8	115%
Program Cost	\$14.1	\$13.4	95%
MW ²	534.4	568.2	106%
MWH	0.0	N/A	-
Units ³	503,131	535,704	106%

Notes on Tables:

- 1) Values are reflected at the system level.
- 2) MW capability at the generator derived from the average reduction during the May - September control season achieved by a full shed of participating air conditioners. At month-end December 2019, we had the ability to shed 568.2 MW (at the plant), representing 106% of the as filed capability.
- 3) Units included in filing represent average kW at the meter during the May - September control season. YTD value is based on 286,473 Power Manager devices at month-end December 2019.

D. Qualitative Analysis

Working in collaboration with Nexant, the Program’s evaluator, Power Manager events were conducted on eight days during the summer of 2019. Prior to these events, the Company conducted several test events to ensure system readiness.

Nexant developed a variety of measurement and verification event scenarios based on: different start and end times, varying durations, cycling and emergency full shed control, and holding out different sub-groups during events to serve as control groups. These EM&V events were conducted on July 15 and 19, August 9 and 19, and September 9, 12, 17 and 26.

In 2019, the Company continued targeted load control device inspections based on analysis of interval usage data collected from smart meters on participating customers’ homes during Power Manager events. Homes whose energy use did not change as expected were identified for follow up. These targeted inspections continued to produce very successful results.

Power Manager®

In years past, the Company used a selected a sample of participating customers to conduct field investigations. The number of inspections that would have been conducted under the prior approach were reduced by over half using the new targeted inspections. In doing so, substantial savings and the following increases as a percentage of completed inspections were achieved:

- 3X as many disconnected Power Manager devices were reconnected.
- 2X as many missing devices were replaced.
- 2.5X as many nonfunctioning devices were replaced.

Continued use of targeted inspections will improve the overall program performance and effectiveness for years to come.

E. Marketing Strategy

Outbound telephone calls were the Program's primary marketing channel with 15,619 customer enrollments for the year, resulting in 102% of goal. Power Manager was featured in the March MYHER home energy report.

At year-end, there were 238,057 customers (NC: 180,513 and SC: 57,544) and 286,473 air conditioners (NC: 216,490 and SC: 69,983) on the program; net increases of 8,682 customers (+3.8%) and 10,794 air conditioners (+3.9%).

At the start of the summer season, Power Manager customers were mailed postcards:

- Reminding them of their participation in the program
- Thanking them for making a difference
- Explaining how Power Manager works, its benefits, tips and other information

Program information and an enrollment form are available to customers on the Power Manager website located at <http://www.duke-energy.com/north-carolina/savings/power-manager.asp>.

F. Evaluation, Measurement and Verification

Results for the Summer 2019 Power Manager program are tentatively scheduled for completion in the second quarter of 2020. The impact evaluation will measure the average and aggregate load reductions for each summer 2019 event and average 2019 event; determine the impacts for each cycling strategy; estimate the capability of the program under peak conditions; and compare the impacts of AMI versus data loggers.

The process evaluation will uncover opportunities to improve the program operations, assess satisfaction or dissatisfaction among program participants, and identify program strengths and weaknesses.

G. Appendix

Power Manager®

OFFICIAL COPY

Feb 25 2020

Residential Home Energy Report

Paper Version



Earn money. Help the environment.

Get up to **\$32 off your summer bills** with **Power Manager**.

Power Manager helps:

- **Preserve natural resources**
- **Delay** the need for **more power plants and transmission lines**
- **Prevent** the use of older, **less efficient power plants**
- **Keep energy costs low** for everyone



Learn more at duke-energy.com/GetReward.

Email Version



Earn money. Help the environment.

Get up to **\$32 off your summer bills** with **Power Manager**.

Power Manager helps:

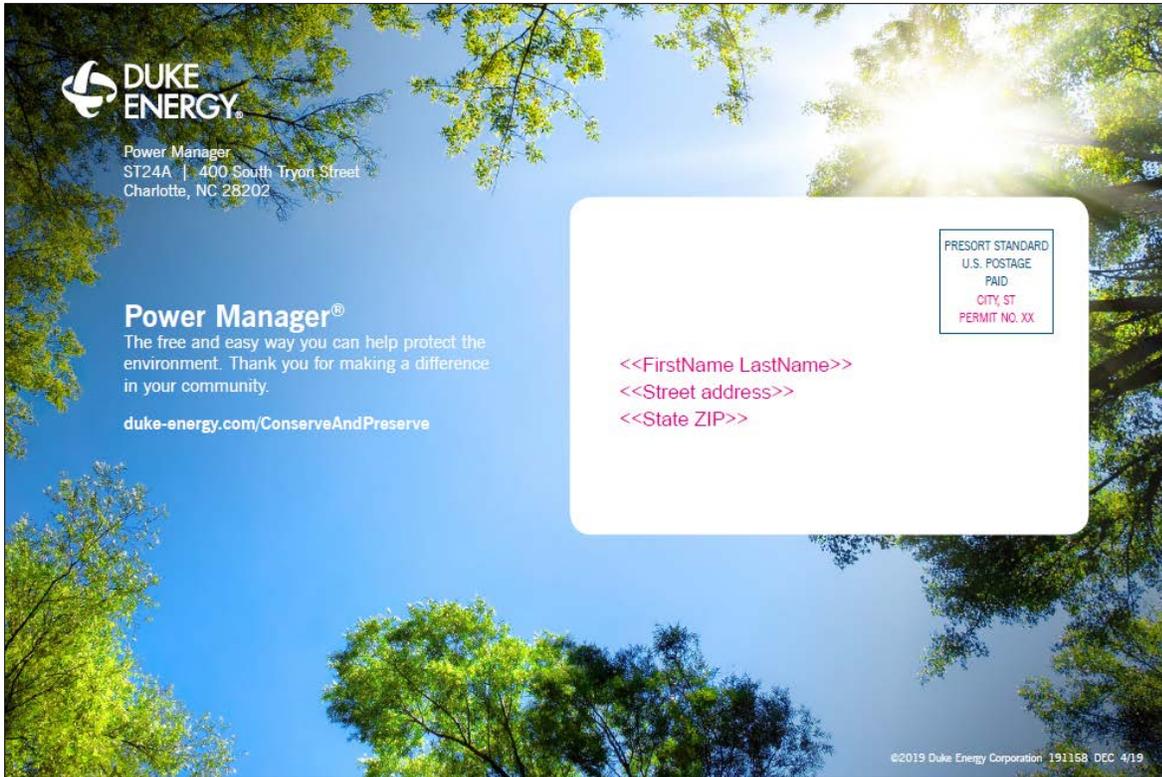
- **Preserve natural resources**
- **Delay** the need for **more power plants and transmission lines**
- **Prevent** the use of older, **less efficient power plants**
- **Keep energy costs low** for everyone

To learn more, click the button below.

[Learn More](#)

Reminder/Thank You Postcard

Power Manager®



OFFICIAL COPY

Feb 25 2020

Your participation in Power Manager is helping to:

-  Use natural resources wisely
-  Delay the need for more power plants and transmission lines
-  Keep energy costs low for everyone

duke-energy.com/ConserveAndPreserve



Power Manager has been making a difference in the Carolinas for 40 years.

Thank you for being a part of it.

When outside temperatures are extreme, the demand for energy spikes and our systems must work extra hard to keep up. This can put a strain on the energy grid, requiring us to find sources to meet that increased demand. One option for meeting energy needs is starting up additional power plants where electricity is generated by fossil fuels.

By joining Power Manager, you've taken a meaningful step to reduce overall demand, keep energy prices low, and preserve natural resources by delaying the need (and greenhouse gas emissions) of additional power plants. Plus, you'll be rewarded with up to \$32 in bill credits.

Power Manager is a win-win-win for you, your community and the environment.

For more information:

To find out if a Power Manager event is underway, call **800.832.3169**.

For questions or if your device is damaged or disconnected, call us at **888.463.5022** to service it for free.



BUILDING A SMARTER ENERGY FUTURE®

A. Description

The purpose of Duke Energy Carolinas, LLC’s (the “Company’s” or “DEC”) Small Business Energy Saver program (the “Program”) is to reduce energy usage through the direct installation of energy efficiency measures within qualifying small non-residential customer facilities. All aspects of the Program are administered by a single Company-authorized vendor. Program measures address major end uses in lighting, refrigeration, and HVAC applications.

Program participants receive a free, no-obligation energy assessment of their facility and a recommendation of energy efficiency measures along with the projected energy savings, costs of all materials and installation, and up-front incentive amount from the Company. If the customer decides to move forward with the proposed project, the customer will make the final determination of which measures will be installed. The vendor then schedules the measure installation by electrical subcontractors at a time convenient for the customer.

The Program is designed as a pay-for-performance offering, meaning that the Company-authorized vendor administering the Program is compensated only for energy savings produced through the installation of energy efficiency measures.

Audience

The Program is available to existing non-residential customers that are not opted-out of the Company’s Energy Efficiency Rider. Program participants must have an average annual demand of 180 kW or less per active account.

B & C. Impacts, Participants and Expenses

Small Business Energy Saver¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$37.9	\$25.7	68%
Program Cost	\$14.6	\$11.4	78%
MW	14.5	9.2	63%
MWH	75,258.1	53,674.2	71%
Units²	61,700,000	51,421,356	83%

1) Values are reflected at the system level.

2) Units reflect gross kWh.

D. Qualitative Analysis

Highlights

Lime Energy is the Company-authorized vendor administering the Program in both DEC and DEP service areas.

In 2019, the Company implemented a modification to the Program incentive design to offer higher, tiered incentives for deep energy retrofit projects with multiple measure technologies, actively incentivizing customers to undertake efficiency upgrades beyond lighting. Ultimately, the Company would like for the Program to encourage customers to take on more comprehensive energy efficiency upgrades to maximize energy savings. The goal was to reduce projects that just completed lighting measures from previous program years. The tiering was successful reducing the lighting only projects from over 80% in previous years to 53% in 2019.

The Company has administered a customer satisfaction survey to Program participants since the Program’s launch in DEC. The survey during 2019 was changed to be a net promotor school from just

measuring customer satisfaction. The new survey changes reported data from past program years. Overall the new survey results still show that program participants overwhelmingly view Duke Energy in a positive light after participation in the Program.

Issues

While LED lighting measures are expected to remain the primary driver of kWh savings in the Program for the foreseeable future, the Company has been actively working with our vendor Lime Energy to implement initiatives focused on increasing refrigeration and HVAC measure adoption.

Potential Changes

As the Program matures, the Company will continue to evaluate opportunities to add incentivized measures which fit the direct install program model and are suitable for the small business market. In addition, the Company is also looking at possible modifications that would allow customers to participate in an Efficiency as a Service payment model were the energy savings would be used to pay off the project cost reducing the financial impact to customers with limited available funds.

E. Marketing Strategy

The Program is marketed primarily using the following channels:

- Lime Energy field representatives
- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Carolinas website
- Social media and search engine marketing
- Email & Duke Energy Business E-Newsletters
- Direct marketing & outreach via Program administrator
- Outreach via Duke Energy Business Energy Advisors
- Community events

All marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities and to emphasize the convenience of Program participation for the target market.

F. Evaluation, Measurement and Verification

No evaluation activities occurred in 2019. Future evaluation activities and timing will be determined at a later date.

Non-Residential Smart \$aver Prescriptive

OFFICIAL COPY

Feb 25 2020

A. Description

The Non-Residential Smart \$aver® Prescriptive Program ("Program") provides incentives to Duke Energy Carolinas, LLC's (the "Company's") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment. The program also uses incentives to encourage maintenance of existing equipment in order to reduce its energy usage. Incentives are provided based on the Company's cost effectiveness modeling to ensure cost effectiveness over the life of the measure.

Commercial and industrial customers can have significant energy consumption but may lack an 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 so it can be reinvested in their businesses, and foster a cleaner environment. In addition, the Program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products.

The Program promotes prescriptive incentives for the following technologies – lighting, HVAC, pumps, variable frequency drives, food services, process and information technology equipment.

Audience

All of the Company's non-residential opt-in customers billed on an eligible Duke Energy Carolinas rate schedule may participate.

B & C. Impacts, Participants and Expenses¹

Non Residential Smart Saver Prescriptive¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$84.3	\$103.6	123%
Program Cost	\$27.8	\$23.7	85%
MW	23.6	30.0	127%
MWH	160,730.5	158,072.3	98%
Units	14,784,792	8,510,436	58%

1) Values are reflected at the system level.

Non Residential Smart Saver Energy Efficient Food Service Products¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$5.4	\$0.4	7%
Program Cost	\$2.0	\$0.3	17%
MW	1.2	0.1	7%
MWH	10,601.9	870.0	8%
Units	11,695	2,419	21%

1) Values are reflected at the system level.

¹ The information reflects results for the Non-Residential Smart \$aver Prescriptive program in aggregate. Reference the Appendix for results by technology.

Non-Residential Smart \$aver Prescriptive

Non Residential Smart Saver Energy Efficient HVAC Products¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$11.7	\$4.5	38%
Program Cost	\$5.8	\$2.2	38%
MW	5.0	1.4	27%
MWH	13,318.7	5,951.0	45%
Units	231,113	3,038,732	1315%

1) Values are reflected at the system level.

Non Residential Smart Saver Energy Efficient Lighting Products¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$62.0	\$98.0	158%
Program Cost	\$17.8	\$20.8	117%
MW	16.3	28.3	173%
MWH	122,943.3	149,658.4	122%
Units	14,523,270	5,456,789	38%

1) Values are reflected at the system level.

Non Residential Energy Efficient Pumps and Drives Products¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$3.0	\$0.5	17%
Program Cost	\$1.2	\$0.2	16%
MW	1.0	0.2	17%
MWH	6,310.6	1,043.9	17%
Units	8,662	1,131	13%

1) Values are reflected at the system level.

Non Residential Energy Efficient ITEE¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$1.8	\$0.0	0%
Program Cost	\$0.7	\$0.0	6%
MW	0.1	0.0	0%
MWH	6,503.2	8.4	0%
Units	5,382	134	2%

1) Values are reflected at the system level.

Non-Residential Smart \$aver Prescriptive

Non Residential Energy Efficient Process Equipment Products¹

<i>\$ in millions, rounded</i>	Vintage 2019	Vintage 2019	% of
	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$0.5	\$0.3	61%
Program Cost	\$0.2	\$0.1	50%
MW	0.1	0.1	65%
MWH	1,052.9	540.5	51%
Units	4,669	11,232	241%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

The Program has developed multiple approaches, including paper and online options for incentive payment applications and instant incentives through the midstream marketing channel and the Online Energy Savings Store, for reaching a broad, diverse audience of business customers.

Several 2019 program trends are listed below.

- Customers continue to show high interest in energy efficiency and had significant funds to invest in efficiency when rebates offset a portion of the cost. The program activity in 2019 came in at 98% of target.
- More customers were drawn to the easy-to-use midstream marketing channel, which contributed nearly half of the 2019 impacts.
- More applicants used the online application.
- Outreach continued to support Trade Allies working with the program.
- Targeted marketing reached out to customers and Trade Allies.
- A dedicated team of representatives responded to customer questions via phone and email provided high levels of customer service.
- Large Account Management and Business Energy Advisors continue to leverage personal relationships with large and medium businesses to identify and support new EE projects.

Customers have several options for participating in the Program. The following chart summarizes 2019 participating customers by Program channel:

Program Option	Participating Customers*	% 2018 YTD Repeat Customer
Paper and Online Application Form	1,169	61%
Midstream Marketing Channel	2,302	61%
Online Energy Savings Store	1,414	63%
Multifamily Free Channel	56	79%

*May include multiple facilities/sites for one customer.

PAPER AND ONLINE APPLICATIONS

During 2019, the Company paid incentives for 2,414 applications, consisting of 5,388 measures. During 2019, 69% of applications were submitted via the online application portal, compared to 61% in 2018. The average payment per paid application was \$4,202.

Customers continue to take advantage of an optional process introduced in 2018 to pre-verify equipment eligibility to have certainty that their selected equipment qualifies for an incentive prior to purchase, which is designed to overcome another barrier that can delay investment in EE projects.

Many Trade Allies participating in the application process reduce the customer's invoice by the amount of the Smart \$aver® Prescriptive incentive and then receive reimbursement from Duke Energy. Customers

Non-Residential Smart \$aver Prescriptive

often prefer this method rather than paying the full equipment cost upfront and receiving an incentive check from Duke Energy.

Duke Energy utilizes an internal database that allows the Program to self-administer Program applications and track program data.

MIDSTREAM MARKETING CHANNEL

The midstream marketing channel provides instant incentives to eligible customers at a participating distributor's point of purchase. Approved midstream distributors validate eligible customers and selected lighting, HVAC, food service and IT products through an online portal and use that information to show customers the reduced price for high efficiency equipment. Upon purchase, the distributor reduces the customer's invoice for the eligible equipment by the amount of the Smart \$aver® Prescriptive incentive. Distributors then provide the sales information to Duke Energy electronically for reimbursement. The incentives offered through the midstream channel are consistent with current program incentive levels.

Energy Solutions provides the online portal for distributors to manage the paperless validation and incentive application. During 2019, approximately 44% of total Smart \$aver Prescriptive incentives were paid through the midstream marketing channel. Duke Energy currently has 272 distributors signed up for the midstream channel, an increase of 14% from 2018.

ONLINE ENERGY SAVINGS STORE

Duke Energy also offers the Business Savings Store on the Duke Energy website, with orders fulfilled by the third-party EFI. The site provides customers the opportunity to take advantage of a limited number of incentivized measures by purchasing qualified products from an online store and receiving an instant incentive in the form of a reduced purchase price. The incentives offered in the online store are consistent with current program incentive levels. Through an emphasis on focused marketing and increased customer interest, the Business Savings Store experienced significant growth in participation in 2019, nearly doubling the number of participating customers versus 2018.

MULTIFAMILY COMMON AREA FREE MEASURES

In order to grow the number of accounts participating in EE, particularly in market segments where knowledge of EE is limited, the Program is now collaborating with the Residential Multifamily Direct Install program to offer free low-cost measures to multifamily common areas as well as tenant spaces. Multifamily properties that are being approached by the Residential Multifamily program's vendor, Franklin Energy, are now eligible to add on limited quantities of common area measures. The common area must be on an eligible commercial rate to participate. Measures such as LED screw-in lamps, LED exit signs, low flow shower heads, faucet aerators and pipe insulation are now being installed where possible in multifamily common areas as well as in residential spaces. For those properties that accept the measures, Franklin Energy will directly install them in the common areas when they are on site for the residential installations. Franklin Energy tracks the measures installed by property, as well as total installations and reports this information to the Smart \$aver program team. This channel began earlier this year, additional channels may be developed in the future to distribute free measures.

TRADE ALLY MANAGEMENT

Over the years, the Program has worked closely with Trade Allies to promote the program to our business customers at the critical point in time when customers are considering standard or high efficiency equipment options. The Smart \$aver® outreach team builds and maintains relationships with Trade Allies in and around Duke Energy's service territory. Existing relationships continue to be cultivated while recruitment of new Trade Allies also remains a focus. Duke Energy's efforts to engage Trade Allies include the following activities:

- Trade Ally Search tool located on the Smart \$aver® website
- Inspections of a sample of all projects to ensure quality control
- Trade Ally co-marketing including information about the Smart \$aver program in the TA's marketing efforts
- Online application portal training and support

Non-Residential Smart \$aver Prescriptive

- Midstream channel support
- Trade Ally year-end awards
- Trade Ally quarterly newsletter
- Technology- and segment-specific marketing collateral
- Trade Ally discussion group (20 Trade Allies that give input on programs)
- Trade Ally training
- Sponsorship of trade ally events
- Online collateral toolkit for access to marketing materials

The Trade Ally outreach team educates Trade Allies on the program rules and the Smart \$aver Program expectations for Trade Ally conduct. The Company continues to look for ways to engage the Trade Allies in promotion of the Program and to target Trade Allies based on market opportunities.

Issues

In the last few years, the combination of the Program's incentives and the falling prices for LED equipment has been very attractive for customers and many have taken advantage of the opportunity to invest in LED upgrades. While there is still significant opportunity for high efficiency lighting, the excitement around LEDs has taken customers' attention away from EE opportunities outside of lighting. The Program has continued to promote non-lighting EE and encourage customers to go beyond lighting for efficiency projects. 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.

Potential Changes

Standards continue to change and new, more efficient technologies continue to emerge in the market. Duke Energy periodically reviews major changes to baselines, standards, and the market for equipment that qualifies for existing measures and explores opportunities to add measures to the approved Program for a broader suite of options. This work is underway now, and there are expected to be changes announced for a limited number of new measures and measure updates later in 2020. These changes likely fall under the flexibility guidelines and not require regulatory approvals. When existing measures change, such as when a measure is removed or an incentive amount is reduced, customers have a 90-day grace period to apply for the past measure or incentive amount.

Duke Energy is also considering new and innovative ways to reach out to customer segments that have had a lower rate of prescriptive incentive applications and considering options to partner with other Duke Energy EE programs to cover gaps in the market and ultimately, make it easier for customers to participate in Smart \$aver incentives.

The Duke program team would like to drive deeper customer savings and increase participation in technologies beyond lighting. The Midstream distributor channel has proven to be efficient and customer friendly, influencing energy efficiency at the point of sale. Efforts are underway to build upon the success of the Midstream channel by evaluating a similar Upstream offer with manufacturers for existing food service and HVAC technologies only.

E. Marketing Strategy

Nonresidential customers learn of programs via targeted marketing material and communications. The 2019 marketing plan included direct marketing such as email and direct mail, online marketing, print marketing and supporting partnerships. The marketing team has selected a highlighted topic for each month and promotes coordinated communication around that topic.

The internal marketing channel consists of assigned Large Business Account Managers, small and medium Business Energy Advisors, and Local Government and Community Relations, who all identify potential opportunities as well as distribute program informational material to customers and Trade Allies.

Non-Residential Smart \$aver Prescriptive

Duke Energy has Business Energy Advisors in the Carolinas area to perform outreach to unassigned small and medium business customers. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors contact customers with revenue between \$60,000 and \$250,000 to promote the Smart \$aver® programs. The Economic and Business Development groups also provide a channel to customers who are new to the service territory.

The following chart summarizes the campaigns during 2019. Select example images are found on the following pages.

Month	Channel	Audience	Incentives Highlighted
January	Email	All Business Customers	Pre-Qualification (All Measures Categories)
February	Email	SMB, BEA (DEC NC/SC)	Non-Participating Customers (All Measures Categories)
February	Email	SMB, BEA (DEC/DEP)	Past Participants (HVAC, Commercial Equipment, Industrial Equipment, Agriculture)
May	Email	All Business Customers*	New Rebate Measures (All Measures Categories)
May	Paid Advertising (digital, paid social, video)	All Business Customers	All Measures Categories
June	Paid Advertising (digital, paid social, video)	All Business Customers	All Measures Categories
July	Paid Advertising (digital, paid social, video)	All Business Customers	All Measures Categories
July	Email	All Business Customers	Lighting & Lighting Controls
July	Email	All Business Customers	Wastewater
August	Paid Advertising (digital, paid social, video)	All Business Customers	All Measures Categories
August	Email	All Business Customers	Lighting
September	Paid Advertising (digital, paid social, video)	All Business Customers	All Measures Categories
October	Email	All Business Customers	HVAC
October	Email	All Business Customers	All Measure Categories/ Cross-Sell Savings Store
November	Paid Advertising (digital, paid social)	All Business Customers (DEC NC/SC)	All Measures Categories
December	Paid Advertising (digital, paid social)	All Business Customers (DEC NC/SC)	All Measures Categories

Non-Residential Smart \$aver Prescriptive

OFFICIAL COPY

Feb 25 2020

January Pre-Qualification – Email

Find out about rebates before the work starts. Trouble viewing? [View in browser.](#)



Plan the next move for your business.

Is your project equipment eligible for rebates?

Before making major energy efficiency upgrades, wouldn't it be nice to be sure that your equipment is eligible for rebate? With the Smart \$aver prequalification option, now you can. Simply log in to the Online Application Portal and select "prequalification" when selecting each rebate.

[GET PREQUALIFIED](#)

Here's how it works:



STEP 1: Submit your application.
Apply to get your equipment rebate eligibility prequalified. Rebate prequalification is voluntary but highly encouraged.



STEP 2: Make upgrades.
When you receive your prequalification letter, your prequalified rebate amount for upgrades is valid for 90 days.



STEP 3: Claim your rebate.
Once your project is complete, log in to the Online Application Portal to request your rebate payment.

BUILDING A SMARTER ENERGY FUTURE™

[f](#) [t](#) [in](#) [v](#) [@](#)

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

Non-Residential Smart \$aver Prescriptive

OFFICIAL COPY

Feb 25 2020

May New Rebate Measures – Email

Don't miss out on new savings opportunities! Trouble viewing? [View in browser.](#)

 **DUKE ENERGY** | Smart \$averSM
Business

New rebates available



Don't miss these savings opportunities!

Our streamlined rebate options can help your business save energy and money. The previous year's rebate amount will apply to equipment purchased on or before June 26, 2019, if installation is completed and application received by Duke Energy on or before Sept. 26, 2019.

For all equipment that has a change to the rebate amount, it must be purchased on or before June 26, 2019, to be eligible for the 2018 rebate. View the new measures and application forms on our website and through our Online Application Portal.

[SEE REBATES](#)

BUILDING A SMARTER ENERGY FUTURE™

Non-Residential Smart \$aver Prescriptive

July Lighting & Controls Webinar – Email



Join us for the Lighting and Controls Webinar!

Do you want to learn how improving your lighting and adding controls can help reduce energy usage? By making a few updates and modifications, your business can save on energy costs.

Learn new ways to reduce electric usage through LED lighting and control upgrades. Plus, find out how to qualify for rebates and incentives.

If you are new to energy efficiency, or just need a refresher course, please join us!



WHEN

Tuesday, August 13, 2019
10-11 a.m.

[REGISTER](#)

BUILDING A SMARTER ENERGY FUTURE®



[Unsubscribe](#) | [Privacy Policy](#) | www.duke-energy.com

Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

Non-Residential Smart \$aver Prescriptive

December Paid Social – Facebook

Duke Energy
Sponsored -

Make energy efficiency upgrades and transform your business. Our rebates and incentives help pay for the sprinkles.

Time to upgrade?

Discover Smart \$aver
Earn rebates and incentives

Get started

Have plans to make energy efficiency upgrades?

We have Smart \$aver rebates and incentives for you.

Please provide your info and someone from our team will be in touch.

First name:

Last name:

Phone number: US 41 | (00) 000-0000

Work email:

Are you a Duke Energy customer?

Cancel Next

Terms and Conditions for Duke Energy

By clicking Submit, you agree to send your info to Duke Energy, who agrees to use it according to their privacy policy. Facebook will not use it based on our Data Policy. [View our privacy policy](#) [View our Data Policy](#) [View our Terms and Conditions](#)

Back Cancel Submit

Thank you for your interest in Smart \$aver.

Duke Energy will be in touch. Visit our main Smart \$aver page online to learn more about additional savings opportunities.

Cancel Visit Website

Non-Residential Smart \$aver Prescriptive

F. Evaluation, Measurement and Verification

The combined DEC/DEP process and impact evaluation for the Non-Residential Smart \$aver® Prescriptive Incentive program for the period of March 2017 through December 2018 began the first quarter of 2019.

A process evaluation to determine free ridership and spillover will be conducted. The process evaluation will include interviews with program management. Main Channel Customer, Midstream Customer and Trade Ally surveys will be conducted to assess program awareness, satisfaction and installation decisions. Program materials will also be reviewed to fully understand the specifics of the program design.

The impact evaluation will mostly consist of engineering desk reviews as well as on site metering for a subset of lighting measures. An online survey with Midstream lighting customers will be performed to verify purchase and installation of lighting measures. Program supplied tracking databases, project documentation and Technical Reference Manuals from Ohio and neighboring states will also be used to estimate verified energy and demand savings for the Smart \$aver Prescriptive program.

The final report is scheduled for the first quarter of 2020.

Non-Residential Smart \$aver® Custom

A. Description

Duke Energy Carolinas, LLC's (the "Company's") 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 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 with measures not covered by the Non-Residential Smart \$aver Prescriptive Program. The intent of the Program is to encourage energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

Unlike the Non-Residential Smart \$aver Prescriptive Program, the Program requires pre-approval prior to the project initiation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

The two approaches for applying for incentives for this Program are Classic Custom and Smart \$aver Tools. Each approach has a method by which energy savings are calculated, but the documents required as part of the application process vary slightly between the two.

Currently the application forms listed below are located on the Company's website under the Smart \$aver® Incentives (Business and Large Business tabs).

- Custom Application, offered in word and pdf format.
- Energy savings calculation support:
 - Classic Custom excel spreadsheet approach (> 700,000 kWh or no applicable Smart \$aver Tool)
 - 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
 - Smart \$aver Tools approach (< 700,000 kWh)
 - HVAC & Energy Management Systems
 - Lighting (no project size limit)
 - Process VFDs
 - Compressed Air

The Company contracts with AESC to perform technical review of applications. All other program implementation and analysis is performed by Duke Energy employees or direct contractors.

Audience

All of the Company's non-residential electric accounts billed on eligible rate schedules, except those that choose to opt-out of the Program, are eligible.

Non-Residential Smart Saver® Custom

B & C. Impacts, Participants and Expenses

Non Residential Smart Saver Custom¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$24.1	\$35.9	149%
Program Cost	\$10.1	\$8.9	88%
MW	6.9	10.1	146%
MWH	60,678.5	52,522.6	87%
Units	48,280	34,709	72%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

Customers continue to identify energy efficiency opportunities eligible for incentives under this Program. In 2019, 203 new pre-approval applications were submitted. 103 from NC, 24 from SC and 76 new construction applications not yet defined by jurisdiction without a final account number.

Smart Saver Custom Incentives program uses a flat rate incentive for both energy and demand savings.

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

The Program launched a fast track option for 2017 which gives customers the ability to pay a fee to speed up their application processing time to seven business days. This fee is passed through to the vendor for its cost to expedite the application.

As of the end of 2019, Custom-to-Go was retired and replaced with the Smart Saver Tool. For the lighting tool only, the customer can submit one file for both Prescriptive and Custom reducing some of the customer's administrative burden. To date DEC has received 22 combined lighting applications.

Issues

The Program application process is considered burdensome by some customers due to the individual and technically intensive review required for all projects applying for a custom incentive. Each year, Program staff explores ways to reduce the length of the application. By streamlining processes, the average processing time has dipped to 19 days for all states/jurisdictions.

The technical review often requires customers (or their vendors) to quantify the projected energy savings from the proposed project. This process can be lengthy and may require some level of engineering expertise. Where necessary, this requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. Indications are that the Smart Saver Tools and online application portal have relieved some of this burden.

The custom program is subject to large fluctuations in performance due to the importance of a small number of large projects. Although the number of small projects is significant compared to the number of large projects, the large projects drive the majority of annual impacts.

The custom program is still limited by customers who are opted out of the EE Rider. Those customers who are opted out are not eligible to participate and any projects completed by those customers are lost opportunities. The custom program is actively working with internal resources (large account managers

Non-Residential Smart \$aver® Custom

and Business Energy Advisors) to determine if opting in to the EE Rider for a potential project is the best option for customers currently opted out.

Finally, the custom program continues to see changes in available technologies as specific measures become eligible for Smart \$aver Prescriptive.

Potential Changes

The Custom program continues to evaluate additional improvements to enhance participation, processing speed and program efficiency.

E. Marketing Strategy

The Company will continue the Program marketing efforts in 2020 through various marketing channels that include but are not limited to the following:

- Direct mail (letters and postcards to qualifying customers)
- Duke Energy website
- Community outreach events
- Small Business Group outreach events
- Paid advertising/mass media
- Social media promotions
- Trade ally outreach
- Account managers
- Business Energy Advisors

These marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation.

Non-residential customers learn of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies who sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through Company account managers. Unassigned small to medium business customers are supported by the Company's Business Energy Advisors. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors promote the program to customers with electrical costs between \$60,000 and \$250,000.

The internal marketing channel consists of Large Business Account Managers and Local Government and Community Relations who all identify potential opportunities as well as distribute program 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.

The Program launched a new marketing channel in 2017 called New Construction Energy Efficiency Design Assistance (NCEEDA) to identify energy efficiency projects for customers currently underserved in the SMB market. This channel will utilize the vendor Willdan Energy Solutions to help identify those opportunities, complete savings calculations, and submit applications for the customer. As of January 24, 2020, DEC has 233 active and completed enrolled projects in the NCEEDA offering, representing 32.3 million square feet of area. Of these, the 187 Smart \$aver Custom project applications represent 64.8 million kWh of energy savings.

Non-Residential Smart \$aver® Custom

F. Evaluation, Measurement and Verification

No evaluation activities occurred in 2019, however evaluation activities will commence in the first quarter of 2020. A final report, combined with DEP, is tentatively planned for the second quarter of 2021.

Non-Residential Smart Saver® Custom Assessment

OFFICIAL COPY

Feb 25 2020

A. Description

Duke Energy Carolinas, LLC's (the "Company's") Non-Residential Smart Saver® Custom Assessment (the "Program") offers financial assistance to qualifying commercial, industrial, and institutional customers to help fund an energy assessment and retro-commissioning design assistance in order to identify energy efficiency conservation measures of existing or new buildings or systems. The detailed study and subsequent list of suggested energy efficiency measures help customers to utilize the Non-Residential Smart Saver® Custom. The Program delivers a detailed energy report that includes the technical data needed for the Non-Residential Smart Saver® Custom Program and assistance with the Non-Residential Smart Saver® Application. All kWh and kW savings identified from measures implemented as a result of the pre-qualified assessments are attributed to Smart Saver Custom Program.

The intent of the Program is to encourage energy efficiency projects that would not otherwise be completed without the Company's technical and financial assistance. The Program's application requires pre-qualification for eligibility. Assessments are performed by professional engineering firms pre-selected and contracted by the Company. The current engineering firms are Willdan, APTIM and ThermalTech Engineering, Inc. All firms offer a diversified set of skills that support all qualifying commercial, industrial, and institutional customers.

The program was modified in 2017 to allow customers to choose one of the firms the Company contracted or to seek third party engineering assistance of their own selection and receive the same financial assistance. Pre-established criteria ensuring that the Program maintains high standards for engineering and work quality must be met for the funds to be released. This modification, which provided customers with more flexibility and choices, is expected to drive an increase in participation.

In 2019, the program again modified its approach again by utilizing a "virtual" approach to the assessment. Using energy modeling software called NEO from Willdan and collecting all building information remotely will allow the audit to be completed in 2-3 weeks for less cost. Each audit will have a fixed cost of \$5,000 of which the customer will be responsible for 50%. The virtual audit will not be applicable to buildings with process loads such as manufacturers. Audits of buildings with process loads will continue to be performed by Aptim and Thermaltech or the customer's vendor of choice. With the new methodology, the goal is to perform 30-50 assessments on an annual basis.

Audience

Pre-qualified non-residential electric customers, except those that choose to opt out of the Program, are eligible.

B & C. Impacts, Participants and Expenses

Non Residential Smart Saver Custom Technical Assessments¹

<i>\$ in millions, rounded</i>	Vintage 2019	Vintage 2019	% of Target
	As Filed	YTD December 31, 2019	
NPV of Avoided Cost	\$3.5	\$0.7	20%
Program Cost	\$1.6	\$0.3	18%
MW	1.0	0.1	15%
MWH	8,831.6	1,930.8	22%
Units	6,125	4	0%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

Non-Residential Smart \$aver® Custom Assessment

Participation in 2019 included 37 customers completing an application for an energy assessment. Of these, 20 chose to switch to the Small Business Energy Saver Program because that program fit the customer's needs better. Nine assessments were completed.

E. Marketing Strategy

The marketing strategy for the Program is to work with those customers that need technical and financial assistance as a companion to their internal resources. Given the facility-wide approach, many of the energy savings opportunities are complex and interactive in nature which fits well with the end-to-end involvement utilized in the Program. Typical customer marketing activity involves direct marketing from Business Account Managers, electronic postcards, e-mails, and information attained through the Company's website and direct customer inquiries. Marketing in the future may shift as the virtual modeling software becomes more applicable. The opportunity to receive a quick readout of a building's efficiency level for a nominal cost will be a compelling message to Duke Energy customers.

F. Evaluation Measurement and Verification

No evaluation activities occurred in 2019.

Non-Residential Smart \$aver® Performance Incentive

A. Description

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

The Program is designed to encourage the installation of high efficiency equipment in new and existing nonresidential establishments as well as the performance of efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The Program provides incentive payments to offset a portion of the higher cost of energy efficient installations that are not eligible under either the Smart \$aver® Prescriptive or Custom programs. The types of measures covered by the Program include projects with some combination of unknown building conditions or system constraints or uncertain operating, occupancy, or production schedules. The specific type of measures are agreed upon with the Customer. The Program is delivered in close coordination with the existing Custom program team and shares resources for administrative review and payment processing. The Program requires pre-approval prior to project initiation.

The intent of the Program is to broaden participation in the Company's non-residential efficiency programs by providing incentives for projects that previously were deemed too unreliable to calculate an acceptably accurate savings amount predictively and, therefore, were not offered incentives. The program is also expected to provide a platform for gaining a better understanding of new technologies.

The key difference between the Performance Incentive Program and the Custom Program is that the customers in the Performance Incentive Program are paid incentives based on actual measured performance. For each project, a plan is developed to verify the actual performance of the project once completed and is the basis for the performance portion of the incentive.

The Program incentives will typically be paid out in the following manner, though payment installment quantities and timing may vary:

- Incentive #1: For the portion of savings that are expected to be achieved with a high degree of confidence, an initial incentive will be paid. This incentive is paid once installation is complete.
- Incentive #2: After performance is measured and verified, the performance-based part of the incentive will be paid out as follows:
 - If performance exceeds expectations, the incentive payout may be larger.
 - If performance does not meet expectations, the incentive payout may be smaller.

Application forms for applying for incentives are located on the Company's website.

The Company contracts with Alternative Energy Systems Consulting, Inc. (AESC) to perform technical review of applications. All other program implementation is performed by Duke Energy employees or direct contractors.

Audience

All of the Company's non-residential electric accounts billed on eligible rate schedules, except those that choose to opt-out of the Program, are eligible.

Non-Residential Smart \$aver® Performance Incentive

B & C. Impacts, Participants and Expenses

Non Residential Smart Saver Performance Incentive¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$8.5	\$2.2	26%
Program Cost	\$3.2	\$0.8	25%
MW	2.5	0.4	16%
MWH	21,489.5	4,546.0	21%
Units	23,254,911	19	0%

1) Values are reflected at the system level.

D. Qualitative Analysis

Highlights

As new technologies are introduced and changes occur in the energy efficiency marketplace, performance incentives are the perfect tool to influence and reward customers who invest in energy efficiency. The Smart \$aver Performance Incentives program was launched on January 1, 2017. Efforts to encourage internal resources, trade allies and vendors who sell energy efficient equipment to promote the Program and assist customers to participate are continuous and on-going. In addition, the Program is marketed closely with the Smart \$aver Custom Program.

In DEC, the program is beginning to reap the fruits of its marketing efforts as program participation increases slightly. In 2019 the program received 12 new applications, 2 of those were from SC.

The program experiences large fluctuations in performance due to long project lead times, long monitoring and verification times, and the timing and sizes of projects. With a compelling value proposition and internal resources and trade allies getting comfortable with this unique program offering, participation is expected to continue to be strong.

The program is now able to offer both top and bottom cycle CHP to customers.

Issues

Program management is monitoring a few areas.

- The preferred method for measurement and verification of performance is gathering, monitoring and analyzing customer billing history. However, energy savings are not significant enough at times to evaluate effectively through the review of billing information. If this is the case, sub-metering is required at the customer's expense and may be a hurdle due to the time and expense of monitoring and verifying savings.
- The Performance program cannot be offered to customers who are opted out of the EE Rider. Performance projects can easily carryover into multiple calendar years because of the monitoring and verification requirement, a situation which could make opting in more difficult to justify.
- Sometimes project M&V can span multiple years thus requiring a customer to be opted-in for multiple years. This is often not preferred and we are beginning to see customers forfeit a portion of their project incentive to opt-out of the rider.

Non-Residential Smart \$aver® Performance Incentive

- Customers may not participate because of the risk of measured energy savings being less than expected and resulting in a smaller incentive payout.
 - The program is having difficulty in finding cost effective projects. Typical Performance project with uncertainty in savings have been controls related, where savings are determined based on the part-load characteristics of the measure or system optimization. These types of projects typically have the following characteristics which makes costs-effectiveness challenging:
 - High first costs
 - Little demand savings – low avoided costs
 - Low measure life
- The program will continue to evaluate projects on a case by case basis to ensure cost effective projects are incentivized.

Potential Changes

The Company continuously considers functional improvements to enhance participation, processing speed and program efficiency.

E. Marketing Strategy

The 2020 marketing strategy for the Smart \$aver Performance Incentive Program closely aligns with the Custom Program. The goal is to educate the Company's non-residential customers about the technologies incentivized through both programs, as well as the benefits of installing energy-efficient equipment. These efforts encompass a multi-channel approach including but not limited to the following:

- Email (targeted customers)
- Direct Mail (letters to qualified/targeted customers)
- Duke Energy Carolinas website
- Community outreach events
- Print advertising/mass media
- Target customer outreach
- Industry Associations
- Large Account Managers
- Business Energy Advisors
- Trade Ally Outreach

Marketing efforts are designed to create customer awareness of the Program, to educate customers on opportunities to save energy, and to emphasize the convenience of Program participation.

Non-residential customers learn of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies who sell equipment and services to all sizes of nonresidential customers. Large business or assigned accounts are targeted primarily through Company account managers. Unassigned small to medium business customers are supported by the Company's Business Energy Advisors. The Business Energy Advisors follow up on customer leads, assist with program questions, and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the Business Energy Advisors contact customers with electrical costs between \$60,000 and \$250,000 to promote the program.

The internal marketing channel consists of Large Business Account Managers, Business Energy Advisors, and Local Government and Community Relations who all identify potential opportunities as well as distribute program 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.

Non-Residential Smart \$aver® Performance Incentive

F. Evaluation, Measurement and Verification

No evaluation activities occurred in 2019. Future evaluation timing will depend upon sufficient participation.

A. Description

PowerShare® (“Program”) is a demand response program offered to commercial and industrial customers. The Program is comprised of Mandatory (“PS-M”), Generator (“PS-G”), and Voluntary (“PS-V”) options, and customers can choose from a variety of offers. Under PS-M and PS-G, customers receive capacity credits for their willingness to shed load during times of peak system usage. Energy credits are also available for participation (shedding load) during curtailment events. The notice to curtail under these offers can be rather short (15-30 minutes), although every effort is made to provide as much advance notification as possible. Failure to comply during an event could result in penalties.

Audience

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

B & C. Impacts, Participants and Expenses

PowerShare¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$38.5	\$42.1	109%
Program Cost	\$13.3	\$13.0	98%
MW ²	337.9	342.6	101%
MWH	0.0	N/A	-
Units ³	318,083	322,533	101%

Notes on Tables:

- 1) Values are reflected at the system level.
- 2) MW capability derived by taking average over specific PowerShare contract periods. At month-end December 2019, we had the ability to shed 342.6 MW (at the plant), representing 101% of the as filed capacity.
- 3) Units included in filing represented KW at meter, rather than number of participants.

D. Qualitative Analysis

Highlights

PS-M and PS-G continue to be well received by customers who have the flexibility to curtail load upon request in both North Carolina and South Carolina. Although several new participants joined the PowerShare program in 2019 adding more than 24MW of capacity, the gains were partially offset by the loss of existing participants, including the closure of a few major textile facilities. There were no PowerShare curtailment events in 2019.

Issues

No current issues.

Potential Changes

No changes anticipated at this time.

E. Marketing Strategy

To date, marketing efforts for the Program have focused on the relationship between the Company’s account executives and their assigned customers. As part of their normal contact with customers, the account executives introduce the Program, including any new options/offers, while explaining the value proposition to the customer. Account executives share in-house analytics that show the incentives for

each offer as applied to the customer's specific load profile and provide marketing collateral to explain the details of all the Program offers.

F. Evaluation, Measurement and Verification

The results of the 2018 PowerShare impact and process evaluation were shared with the Carolinas Collaborative in the Second Quarter of 2019. For the impact evaluation, Navigant audited the hourly kW DR event load shed for participating customers by replicating the Schneider Electric Energy Profiler Online™ (EPO) methods used to calculate the energy (kWh) and demand (kW) impacts used to determine settlement payments.

The process evaluation determined there was high satisfaction with the program. Participants preferred however, to get more advance notice for when to curtail and to gain a better understanding of how the incentive was calculated.

A. Description

Duke Energy Carolinas, LLC’s (the “Company’s” or “DEC”) EnergyWise Business (the “Program”) is an energy efficiency and demand response program for non-residential customers that allows the Company to reduce the operation of participants’ air conditioning units to help manage the power grid. The Program provides customers with options for how they would like to participate. In exchange for participation, the Company applies an annual incentive directly to their bills.

For each air conditioning or heat pump unit that they have, Program participants can choose between a Wi-Fi thermostat or a load control switch professionally installed for free by the Program. In addition to choosing the equipment, participants also choose the cycling level at which they participate—30%, 50% or 75%. The levels represent the percentage of the normal on/off cycle of the unit that is reduced. During a conservation period, Company sends a signal to the thermostat or switch to reduce the amount of time a unit is on by the percentage the participant selected. For participating at the 30% level the customer receives a \$50 annual bill credit for each unit, \$85 for 50% cycling, and \$135 for 75% cycling. Finally, participants that have a heat pump unit with electric resistance emergency/back up heat and choose the thermostat can also participate in a winter option that allows the Company to control the emergency/back up heat. For 100% control of the emergency/back up heat, the Company provides an additional \$25 annual bill credit.

Participants choosing the thermostat are given access to a portal that allows them to control their units from anywhere they have internet access. They can set schedules, adjust the temperature set points and receive energy conservation tips and communications from the Company. In addition to the portal access, participants also receive conservation period notifications. Notifications allow participants to make adjustments to their schedules or notify their employees of the upcoming conservation period. Participants are allowed to override two conservation periods per year either before or during the conservation period.

Audience

The Program is available to existing non-residential customers that are not opted-out of the DSM portion of the Company’s EE/DSM rider, Rider DSM; have at least one air conditioner or heat pump that operates to maintain a conditioned space on weekdays during the calendar months of May through September; and are not served under Schedules BC and HP, Riders NM, SCG, IS, PS or PSC. Also, customers must have an average minimum usage of 1,000 kWh during those same calendar months.

B & C. Impacts, Participants and Expenses

EnergyWise for Business¹

<i>\$ in millions, rounded</i>	Vintage 2019 As Filed ³	Vintage 2019 YTD December 31, 2019	% of Target
NPV of Avoided Cost	\$3.3	\$2.7	83%
Program Cost	\$4.0	\$3.7	93%
MW	16.7	11.6	70%
MWH	2,885.9	2,704.1	94%
Units ²	19,023	15,053	79%

1) Values are reflected at the system level.

2) Units represent average monthly kW at meter for demand response measures (10,071), plus individual participants for smart thermostat energy efficiency measures (4,982).

D. Qualitative Analysis

Highlights

During 2019, the Program continued to experience significant growth. The Program added 3,418 net new devices bringing the total installed devices in DEC to 12,885. The door-to-door marketing (canvassing) efforts have continued to be the most productive marketing efforts for producing enrollments, installations and positive customer interactions. In 2019, the Program canvassed in the Winston-Salem/Greensboro, Charlotte, the greater Charlotte region, Greenville/Spartanburg, and Hickory areas. Over 20,000 customers were reached during 2019 through the canvassing efforts.

Issues

One factor that continues to impact the Program's overall performance is the high number of customers selecting to enroll in the 30% cycling option. Approximately 74% of customers are participating in this option. This is a slight improvement from the 80% participation in the 30% cycling option seen at the end of 2018. The original assumption when the Program was filed was that 50% of customers would select this option. Program staff worked with canvassers to improve their pitches to promote the higher cycling options, improving the current enrollment percentages and bringing them closer to the original assumptions. But, with the high percentage of customers participating in the 30% option in prior years, the overall percentage is slow to come down.

Potential Changes

The Program is evaluating the possibility of adding additional thermostat options to offer customers during the install. The new thermostat will reduce the number of installs that are turned down due to the current version not having features used by the customer.

E. Marketing Strategy

In 2019 the Program continued the efforts of door-to-door marketing using a dedicated canvassing vendor. In addition to canvassing, the Program targets slightly larger and multi-location customers through Duke Energy's Business Energy Advisors.

F. Evaluation, Measurement and Verification

There were no evaluation activities for this program in 2019.

Duke Energy Carolinas, LLC
Estimate - January 1, 2021 - December 31, 2021
Docket Number E-7, Sub 1230
Projected Program/Portfolio Cost Effectiveness - Vintage 2021

Program	UCT	TRC	RIM	PCT
Residential Programs				
• Energy Education Program for Schools	1.40	1.41	0.53	8.97
• Energy Efficient Appliances & Devices	2.64	2.20	0.60	4.96
• Residential – Smart \$aver Energy Efficiency Program	0.81	0.67	0.49	1.68
• Income-Qualified EE Products & Services	0.70	0.72	0.44	2.09
• Multi-Family EE Products & Services	3.14	3.16	0.66	20.52
• My Home Energy Report	1.89	1.89	0.66	
• Power Manager	4.33	9.80	4.33	
• Residential Energy Assessments	1.33	1.28	0.48	19.95
Residential Total	2.50	2.82	1.04	6.18
Non-Residential Programs				
• Custom Assessment & Incentive	3.03	1.13	0.86	1.92
• EnergyWise for Business	0.63	1.26	0.55	
• Food Service Products	1.45	0.79	0.45	2.38
• HVAC	1.47	1.12	0.64	2.05
• Lighting	4.19	2.14	0.78	4.08
• Motors, Pumps & VFDs	3.11	2.41	0.82	4.99
• Non Res Information Technology	0.65	0.47	0.31	2.26
• Process Equipment	3.50	2.26	0.97	3.66
• Performance Incentive	3.22	1.06	0.86	1.79
• Small Business Energy Saver	2.32	1.43	0.76	2.60
• PowerShare	3.37	137.02	3.37	
Non-Residential Total	3.12	2.03	0.93	3.16
Overall Portfolio Total	2.81	2.32	0.98	3.83

Duke Energy Carolinas
Docket Number E-7, Sub 1230
Changes to DSM/EE Cost Recovery Vintage 2019 True Up January 1, 2019 - December 31, 2019
Changes from Prior Filing Due to Application of M&V and Participation
System kWh and kW Impacts Net Free Riders at the Plant

Residential Programs	Filed in Docket E-7, Sub 1164		Filed in Docket E-7, Sub 1230		Overall Variance		E-7 Sub 1164	E-7 Sub 1230	Delta	Variance attributable to Participation		Variance attributable to Mix of Measures		Variance attributable to EM&V		Sum of Variances	
	kWh	kW	kWh	kW	kWh	kW	System Participation	System Participation	Participation	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Energy Efficiency Education Program for Schools	5,701,506	1,339	6,713,787	841	1,012,280	(497)	26,705	24,785	(1,920)	(409,919)	(96)	-	-	1,422,200	(401)	1,012,280	(497)
Energy Efficient Appliances and Devices	97,320,521	16,726	187,351,705	31,803	90,031,183	15,077	3,997,670	9,893,466	5,895,796	102,630,042	13,446	5,166,789	389	(17,765,648)	1,242	90,031,183	15,077
Residential – Smart Saver Energy Efficiency Program	5,130,696	1,294	7,329,114	2,029	2,198,418	735	9,630	25,852	16,222	3,814,398	1,676	(507,093)	(179)	(1,108,887)	(761)	2,198,418	735
Income Qualified Energy Efficiency and Weatherization Assistance	4,043,435	639	9,029,752	1,105	4,986,316	467	10,114	10,814	700	967,344	135	-	-	4,018,972	332	4,986,316	467
Multi-Family Energy Efficiency	19,846,385	2,001	24,086,174	2,649	4,239,789	648	342,660	493,307	150,647	1,757,319	173	2,504,662	317	(22,191)	158	4,239,789	648
Energy Assessments	6,542,935	1,040	7,886,916	946	1,343,981	(94)	34,304	61,692	27,388	1,826,639	273	169,564	19	(652,222)	(386)	1,343,981	(94)
My Home Energy Report	312,934,099	79,359	328,439,103	91,387	15,505,004	12,027	1,364,000	1,339,152	(24,848)	(8,076,363)	(2,011)	-	-	23,581,367	14,038	15,505,004	12,027
PowerManager	-	534,419	-	568,235	-	33,816	503,131	534,967	31,836	-	33,816	-	-	-	-	-	33,816
Residential Programs Total	451,519,578	636,816	570,836,550	698,996	119,316,972	62,179	6,288,214	12,384,035	6,095,821	102,509,461	47,412	7,333,923	545	9,473,589	14,222	119,316,972	62,179

Non-Residential Programs	Filed in Docket E-7, Sub 1164		Filed in Docket E-7, Sub 1230		Overall Variance		E-7 Sub 1164	E-7 Sub 1230	Delta	Variance attributable to Participation		Variance attributable to Mix of Measures		Variance attributable to EM&V		Sum of Variances	
	kWh	kW	kWh	kW	kWh	kW	System Participation	System Participation	Participation	kWh	kW	kWh	kW	kWh	kW	kWh	kW
Non Residential Smart Saver Custom Technical Assessments	8,831,594	1,008	1,930,762	148	(6,900,831)	(860)	6,125	4	(6,121)	-	-	(6,900,831)	(860)	-	-	(6,900,831)	(860)
Non Residential Smart Saver Custom	60,678,525	6,927	52,522,612	10,109	(8,155,912)	3,183	48,280	34,709	(13,571)	-	-	(8,155,912)	3,183	-	-	(8,155,912)	3,183
Non Residential Smart Saver Energy Efficient Food Service Products	10,601,930	1,159	870,041	76	(9,731,890)	(1,083)	11,695	2,419	(9,276)	(4,662,804)	(459)	(4,052,247)	(474)	(1,016,839)	(149)	(9,731,890)	(1,083)
Non Residential Smart Saver Energy Efficient HVAC Products	13,318,652	5,012	5,950,986	1,367	(7,367,666)	(3,645)	231,113	3,038,732	2,807,618	(1,001,440)	(934)	(5,655,028)	(2,500)	(711,198)	(211)	(7,367,666)	(3,645)
Non Residential Smart Saver Energy Efficient Lighting Products	122,943,286	16,312	149,658,444	28,280	26,715,157	11,968	14,523,270	5,456,789	(9,066,481)	(12,262,414)	(368)	15,890,028	5,915	23,087,543	6,421	26,715,157	11,968
Non Residential Energy Efficient Pumps and Drives Products	6,310,561	978	1,043,899	166	(5,266,662)	(812)	8,662	1,131	(7,532)	(5,550,813)	(856)	(31,163)	(6)	315,313	50	(5,266,662)	(812)
Non Residential Energy Efficient ITEE	6,503,152	50	8,442	-	(6,494,710)	(50)	5,382	134	(5,248)	(99,171)	-	(6,394,065)	(50)	(1,474)	-	(6,494,710)	(50)
Non Residential Energy Efficient Process Equipment Products	1,052,919	129	540,487	84	(512,432)	(45)	4,669	11,232	6,563	(187,188)	(32)	(423,895)	(30)	98,652	17	(512,432)	(45)
Non Residential Smart Saver Performance Incentive	21,489,480	2,453	4,545,995	391	(16,943,485)	(2,062)	23,254,911	19	(23,254,892)	-	-	(16,943,485)	(2,062)	-	-	(16,943,485)	(2,062)
Smart Energy in Offices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small Business Energy Saver	75,258,073	14,501	53,674,194	9,196	(21,583,880)	(5,306)	61,700,000	51,421,356	(10,278,644)	(12,422,870)	(4,316)	470	0	(9,161,481)	(989)	(21,583,880)	(5,306)
Business Energy Report	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EnergyWise for Business	2,885,926	16,662	2,704,118	11,598	(181,808)	(5,064)	19,023	15,053	(3,970)	504,397	(4,836)	-	-	(686,206)	(229)	(181,808)	(5,064)
PowerShare	-	337,864	-	342,590	-	4,726	318,083	322,533	4,450	-	4,726	-	-	-	-	-	4,726
Non-Residential Programs Total	329,874,099	403,056	273,449,978	404,005	(56,424,120)	950	100,131,213	60,304,110	(39,827,103)	(35,682,302)	(7,076)	(32,666,129)	3,116	11,924,311	4,910	(56,424,120)	950
Total Residential and Non-Residential Programs	781,393,677	1,039,872	844,286,529	1,103,001	62,892,852	63,129	106,419,427	72,688,145	(33,731,281)	66,827,159	40,336	(25,332,207)	3,661	21,397,900	19,132	62,892,852	63,129

NOTE - The actual per unit impacts are reflective of the following EM&V reports:

Program Name As Filed	Docket	Report Reference	Effective Date
Income Qualified Energy Efficiency and Weatherization Assistance	E-7, Sub 1230	Duke Energy Carolinas and Duke Energy Progress 2017 Neighborhood Energy Saver Program Evaluation Report - Final	11/30/2019
My Home Energy Report Program	E-7, Sub 1230	My Home Energy Report Program Evaluation	7/10/2019
PowerShare Program	E-7, Sub 1192	Duke Energy PowerShare Program 2018 Evaluation Report for Duke Energy Carolinas	5/2/2019
Residential – Smart Saver Energy Efficiency Program	E-7, Sub 1230	Smart Saver Evaluation Report – May 1, 2016 – April 30, 2017 (Revised)	3/15/2019
Energy Efficiency Education in Schools Program	E-7, Sub 1230	Energy Efficiency Education in Schools Program Year 2017-2018 Evaluation Report	2/1/2019
Smart Saver® Non-Residential Custom Program	E-7, Sub 1230	Smart Saver® Non-Residential Custom Program Years 2016-2017 Evaluation Report	11/29/2018

Duke Energy Carolinas, LLC
List of Industrial and Commercial Customers Opted Out of Vintage 2018
Docket E-7, Sub 1230

	Number of Accounts
DSM RIDER OPT OUT YR 2018	5,537
EE RIDER OPT OUT YR 2018	4,962

Customer Bill Name	DSM YR 18 (Jan 1-Dec 31)	EE YR 18 (Jan 1-Dec 31)	GRAND TOTAL
	RIDER OPT OUT	RIDER OPT OUT	
101 NORTH CHERRY ST LLC	1	1	2
101 SOUTH TRYON LP	2	2	4
1515 MOCKINGBIRD CHARLOTTE OFFICE LLC	1	1	2
301 COLLEGE STREET CENTER LLC	1	1	2
4601 PARK CHARLOTTE OFFICE LLC	1	1	2
600 SOUTH TRYON DEVELOPMENT, LLC	1		1
638 BREWING CO, INC	2	2	4
800 GREEN VALLEY ASSOCIATES LLC	1	1	2
A & T STATE UNIV	13	10	23
A W NORTH CAROLINA INC	6	6	12
ABB MOTORS AND MECHANICAL INC	7	7	14
ABCO AUTOMATION INC	1	1	2
ABERCROMBIE TEXTILES LLC		1	1
ABSS FACILITIES DEPT	7	4	11
ADVANCE STORES CO	1	1	2
ADVANCED DRAINAGE SYSTEMS	2	2	4
ADVANCED MACHINE & FABRICATION, INC.	3	3	6
ADVANCED TECHNOLOGY	2	1	3
AE & T COMPANY INC	1	1	2
AERO ACCESSORIES INC	4	4	8
AERODYN WIND TUNNEL LLC	1	1	2
AFFILIATED COMPUTER SERVICE	2	2	4
AFRO AMERICAN CULTUR	1	1	2
AIR PRODUCTS & CHEMICALS, INC	1	1	2
AIRGAS USA LLC		1	1
AKZO NOBEL SURFACE CHEMISTRY LLC	9	8	17
ALADDIN MANUFACTURING CORPORATION		2	2
ALAMANCE REGIONAL MEDICAL CENTER	2	5	7
ALAMANCE REGIONAL MEDICAL CENTER		2	2
ALBEMARLE U. S., INC	1	1	2
ALBEMARLE U. S., INC	1	1	2
ALCAN PACKAGING FOOD AND TOBACCO,INC	2	2	4
ALDERSGATE	11	11	22
ALDI (NC) LLC	2	2	4
ALEXANDER COUNTY SCHOOLS	2	2	4
ALEXANDRIA REAL ESTATE EQUITIES INC	7	6	13
ALL GRANITE INC	3	3	6
ALLIANCE ONE INTERNATIONAL	1		1
ALLIED DIE CASTING CO OF NC	2	2	4
ALLTEL MOBILE	1	1	2
ALTEC INDUSTRIES INC	1	1	2

AMAZON FULFILLMENT SERVICES, INC	1	1	2
AMAZON.COM SERVICES, INC.	8	8	16
AMAZON.COMM.DEDC,LLC	1	1	2
AMERICAN & EFIRD LLC	8	9	17
AMERICAN AIRLINES	5	2	7
AMERICAN CAMPUS LLC	1	1	2
AMERICAN CAMPUS OPERATING CO LLC	3	3	6
AMERICAN CONVERTING, CO. LTD	2	2	4
AMERICAN EXPRESS TRAVEL RELATED SERVICES COMPANY	1	1	2
AMERICAN FIBER & FINISHING	1	1	2
AMERICAN HEBREW ACADEMY	11	11	22
AMERICAN MULTI CINEMA INC	6	6	12
AMERICAN ROLLER BEARING CO	2	2	4
AMERICAN TOBACCO HH LLC	6	6	12
AMERICAN TOBACCO POWER HOUSE LLC	2	2	4
AMERICAN YARNS LLC	3	3	6
AMERICAN ZINC PRODUCTS LLC	1	1	2
AMSTAR SUGAR CORP	1	1	2
ANDALE INC	1	1	2
APPLE INC	2	1	3
AQUA PLASTICS INC	3	3	6
ARCHER-DANIELS-MIDLAND CO	3	3	6
ARDAGH METAL BEVERAGE USA, INC	2	2	4
ARE-NC REGION NO 11, LLC	3	3	6
ARJOBEX AMERICA	2	2	4
ARMACELL LLC	8	8	16
ARROW INTERNATIONAL INC	2	2	4
ASHLEY FURNITURE INDUSTRIES INC	13	13	26
AT&T BELLSOUTH	3	3	6
AT&T MOBILITY LLC	4	4	8
AT&T WIRELESS SERVICE	1	1	2
ATAPCO UEP, INC	2	2	4
ATLANTIC SWEETNER CO	2	2	4
ATLAS WELDING	3	3	6
ATOS IT OUTSOURCING SERVICES	1	1	2
ATOS IT SOLUTIONS AND SERVICES, INC	1	1	2
ATRIUM WINDOWS & DOORS	9	9	18
AUTOMATED SOLUTIONS LLC	2	2	4
AVAGO TECHNOLOGIES WIRELESS(USA) MANUFACTURING	1	1	2
B & E WOODTURNING INC	1	1	2
B & W FIBERGLASS	1	1	2
B V HEDRICK GRAVEL & SAND COMPANY	10	10	20
B&G FOODS SNACKS, INC	1	1	2
B/E AEROSPACE, INC	12	16	28
BAKER INTERIORS FURNITURE COMPANY	6	8	14
BAKERY FEEDS INC	2	2	4
BANK NOTE CORP	3	3	6
BANK OF AMERICA	5	3	8
BARNHARDT MANUFACTURING COMPANY INC	7	7	14
BARRDAY CORP	3	3	6
BARTIMAEUS BY DESIGN INC	3	3	6
BASF AGRICULTURAL SOLUTIONS SEED US LLC	10	10	20

BASF CORPORATION	4	4	8
BAY STATE MILLING	5	5	10
BB&T	12	11	23
BEAL MANUFACTURING CORP	1	1	2
BEASLEY FLOORING PRODUCTS INC	2	2	4
BECO MANAGEMENT	2	2	4
BED,BATH & BEYOND	1	1	2
BEKAERT TEXTILES USA	4	3	7
BELK	6	6	12
BELL SOUTH MOBILITY	1	1	2
BELLSOUTH	10	10	20
BELLSOUTH BSC	14	14	28
BELLSOUTH TELECOMMUNICATIONS, LLC	1	1	2
BELMONT ABBEY COLLEGE	19	19	38
BEMIS MANUFACTURING CO	2	2	4
BENJAMIN THOMAS COOPER		1	1
BEOCARE INC	2	3	5
BERNHARDT FURNITURE COMPANY	8	8	16
BERRY TRI PLASTICS		1	1
BESTCO	5	5	10
BESTREADS INC	2	2	4
BEVERLY KNITS INC	6	6	12
BIC CORPORATION	5	4	9
BILLY GRAHAM EVANGELISTIC	7	7	14
BI-LO, LLC	15	15	30
BIOMERIEUX, INC	4	4	8
BISHOP MCGUINNESS CATHOLIC HIGH SCHOOL	3	3	6
BISSELL COMPANIES	22	2	24
BJ'S WHOLESALE CLUB	3	3	6
BLACKSTONE CHARLOTTE, LLC	2	2	4
BLUE RIDGE COMMUNITY COLLEGE	17	15	32
BLUE RIDGE HEALTH CARE	1	1	2
BLUM, INC	1	1	2
BONSET AMERICA CORP	1	1	2
BORAL COMPOSITES INC.	4	4	8
BOSTON GEAR LLC	1	1	2
BOWMAN DAIRY	1	1	2
BOXBOARD PROD INC	2	2	4
BRASS CRAFT MFG CO	1	1	2
BRAXTON SAWMILL INC	3	3	6
BREVARD COLLEGE	25	25	50
BRF-A1,LLC	1	1	2
BRI 1875 MERIDIAN, LLC	8	2	10
BRIDGESTONE AIRCRAFT TIRE USA INC	3	3	6
BRIGHT ENTERPRISES INC	2	2	4
BRIT CHARLOTTE LLC	1	1	2
BRIT-CHARLOTTE HOLDING LLC	3	3	6
BROAD RIVER WATER AUTHORITY	1		1
BSN MEDICAL INC	1		1
BUCKEYE FIRE EQUIPMENT COMPANY	4	3	7
BUD ANTLE, INC	1	1	2
BURKE COUNTY SCHOOLS	27	18	45

BURLINGTON COAT FACTORY	3	2	5
BURLINGTON TECHNOLOGIES INC	3	3	6
CABARRUS COUNTY SCHOOLS	63	63	126
CALICO TECHNOLOGIES INC	3	3	6
CAMBRIDGE ACQUISITIONS LLC	2	2	4
CAMBRO MANUFACTURING CO	4	4	8
CAMCO MANUFACTURING, INC	5	5	10
CAMFIL USA INC	2	2	4
CANDLE CORPORATION OF AMERICA	2	2	4
CAP YARNS LLC		2	2
CAPITOL BROADCASTING COMPANY INC	10	10	20
CAPITOL TOWERS LLC	5	5	10
CARAUSTAR INC	4	2	6
CARAUSTAR INDUSTRIES	3	2	5
CARDINAL FLOAT GLASS	1	1	2
CARDINAL HEALTH	1	1	2
CARDINAL HEALTH 200, LLC	1	1	2
CARDINAL HEALTH INC	2	2	4
CARGILL, INCORPORATED	9	9	18
CARLISLE FOOD SERVIC	3	3	6
CARMEL COUNTRY CLUB	27	27	54
CARMEL CTRY CLUB	1	1	2
CAROLINA BEVERAGE GROUP, LLC	4	4	8
CAROLINA CONTAINER	5	5	10
CAROLINA CUSTOM SURFACES LLC	2	2	4
CAROLINA GLOVE COMPANY	6	6	12
CAROLINA GRAPHIC SERVICES LLC	1	1	2
CAROLINA INVESMENT PROPERTIES	1	1	2
CAROLINA LASER CUTTING INC	1	1	2
CAROLINA MEADOWS INC	20	20	40
CAROLINA NONWOVENS LLC	1		1
CAROLINA PERLITE CO	1	1	2
CAROLINA PRECISION COMPONENTS, INC.	1	1	2
CAROLINA PRECISION PLASTICS LLC	6	6	12
CAROLINA STALITE CO	11	11	22
CAROLINA SUNROCK CORP	10	10	20
CAROLINA TRACTOR & EQUIPMENT COMPANY	4	4	8
CAROLINA VILLAGE	4	4	8
CAROLINA YARN	2	2	4
CAROLINAS HEALTHCARE SYSTEM	31	22	53
CARPENTER COMPANY	4	4	8
CARRIER CORPORATION	2	1	3
CASCADE DIE CASTING GRP INC		2	2
CASE FARMS	3	3	6
CASTLE & COOKE NORTH CAROLINA LLC	4	4	8
CATAWBA COLLEGE	1		1
CATAWBA COUNTY SCHOOLS	23	17	40
CATAWBA VALLEY MEDICAL CENTER	1	1	2
CATO CORP	2	2	4
CB RICHARD ELLI	12	12	24
CBL ASSOCIATES MANAGEMENT, INC	1	1	2
CBP RESOURCES	4	4	8

CCC DEVELOPMENT PARTNERS, LLC	1	1	2
CDP DURHAM CENTER INVESTORS LLC	1	1	2
CEDAR FAIR SOUTHWEST, INC	3	3	6
CELGARD, LLC	3	1	4
CENTRAL CAROLINA PLASTICS INC	2	2	4
CENTRAL CAROLINA PRODUCTS	1	1	2
CENTRAL REGIONAL HOSPITAL		5	5
CENTRILOGIC, INC	1	1	2
CENTURY FURNITURE, LLC	7	13	20
CERTAINTEED CORP	1	4	5
CHAPEL HILL/ CARRBORO SCHO	51		51
CHARLOTTE COLOCATION CENTER LLC	1	1	2
CHARLOTTE COUNTRY DAY SCHOOL	10		10
CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT	1		1
CHARLOTTE GATEWAY VILLAGE	2	2	4
CHARLOTTE LATIN SCHOOLS, INC	10	10	20
CHARLOTTE OBSERVER PUBLISHING COMPANY	1	1	2
CHARLOTTE PIPE & FOUNDRY	13	13	26
CHARTER COMMUNICATION	1	1	2
CHEMICAL SPECIALTIES	5	5	10
CHEROKEE BOYS CLUB	3	3	6
CHEROKEE INDIAN HOSPITAL	1	1	2
CHESAPEAKE TREATMENT COMPANY, LLC	1	1	2
CINEBARRE, LLC	2	2	4
CISCO SYSTEMS INC	1	1	2
CITY OF ASHEVILLE	1	2	3
CITY OF BELMONT	2	2	4
CITY OF BURLINGTON	5	5	10
CITY OF CHARLOTTE	92	107	199
CITY OF CHARLOTTE REGIONAL VISITORS AUTHORITY	6	6	12
CITY OF DURHAM	4	4	8
CITY OF EDEN		2	2
CITY OF GASTONIA	3	3	6
CITY OF GRAHAM	2	2	4
CITY OF GREENSBORO	27	29	56
CITY OF HENDERSONVILLE	4	4	8
CITY OF HICKORY	4	4	8
CITY OF KANNAPOLIS		1	1
CITY OF MARION	2	2	4
CITY OF MEBANE	1	1	2
CITY OF REIDSVILLE	2	2	4
CITY OF SALISBURY	10	9	19
CITY OF WINSTON SALEM	25	30	55
CK THREE TOWER CENTER,LLC	1	1	2
CKS PACKAGING INC	5	5	10
CLAPPS NURSING HOME CENTER	1	1	2
CLARIANT CORPORATION	19	19	38
CLEARWATER PAPER CORPORATION	5	5	10
CLEMENT PAPPAS NC, INC	4	3	7
CLEVELAND COUNTY FAMILY YOUNG MENS CHRISTIAN ASS	2	2	4
CLEVELAND COUNTY SCHOOLS	63	60	123
CMBE	178		178

CMC-NORTHEAST INC	8	8	16
CMHA	14	12	26
COATS AMERICAN	2	2	4
COCA COLA CONSOLIDATED INC	5	5	10
COLONIAL PIPELINE		5	5
COLUMBIA PLYWOOD CORPORATION	6	6	12
COMMONWEALTH BRANDS	2	2	4
COMMONWEALTH HOSIERY	3	3	6
COMMSCOPE, INC.	9	9	18
CONCRETE SUPPLY	3	3	6
CONCRETE SUPPLY CO	7	7	14
CONCRETE SUPPLY COMPANY LLC	1	1	2
CONOVER LUMBER CO	2	2	4
CONRAD HILL FEED &	1	1	2
CONSOLIDATED CONTAINER COMPANY	6	6	12
CONSOLIDATED METCO INC		1	1
CONTINENTAL AUTOMOTIVE SYSTEMS, INC	2	2	4
CONTINENTAL STRUCTURAL PLASTICS	4	4	8
COPLAND FABRICS INC		1	1
CORE SCIENTIFIC INC		1	1
CORMETECH INC	1	1	2
CORNERSTONE CHARTER ACADEMY INC	2	2	4
CORNING CABLE SYSTEMS	5	5	10
CORNING INC	6	6	12
COSTCO WHOLESALE INC	5	5	10
COUSINS PROP INC	1	1	2
COUSINS PROPERTIES LP	4	4	8
COVERIS FLEXIBLES (THOMASVILLE) US LLC	6	6	12
CPCC	49	43	92
CPP INTERNATIONAL LLC	1	1	2
CRAFT REVOLUTION LLC	1	1	2
CREDIT SUISSE SECURITIES (USA) LLC	1	1	2
CREDIT SUISSE SECURITIES(USA) LLC CENTER OF EXCELLENCE	1		1
CREE INC	10	10	20
CRONLAND LUMBER CO	1	1	2
CROWN CONVERTING	4	4	8
CS CAROLINA INC	1	1	2
CSHV 615 COLLEGE LLC	2	2	4
CSHV SOUTHPARK 6100 FAIRVIEW, LLC	1	1	2
CSHV SOUTHPARK, LLC	1	1	2
CULP HOME FASHIONS	1	1	2
CULP INC	3	3	6
CURTISS-WRIGHT CONTROLS INC	4	4	8
CV PRODUCTS CONSOLIDATED LLC	2	2	4
CYRUSONE-NC LLC	3	3	6
DAIMLER TRUCKS NORTH AMERICA, LLC	5	5	10
DAIRY FRESH	6	6	12
DALCO NONWOVENS, LLC	2	2	4
DANNY TERRELL	2	2	4
DART CONTAINER CORP	3	2	5
DATA CHAMBERS, LLC	2	2	4
DAVIDSON COLLEGE	15	15	30

DAVIDSON COUNTY COMMUNITY COLLEGE	3	3	6
DAVIDSON WATER INC		1	1
DAVIS AMBULATORY SURGICAL CENTER	1	1	2
DC74 LLC	3	3	6
DE FEET INTERNATIONA	3	3	6
DEBOTECH INC	1	1	2
DEERE HITACHI CONST MACH	11	11	22
DELTA PHOENIX, INC.	1	1	2
DIAMOND VIEW I LLC	2	2	4
DIAMOND VIEW II	2	2	4
DILLARDS DEPARTMENT STORE	7	7	14
DISCOVERY PLACE INC	2	2	4
DISNEY WORLDWIDE SERVICES INC	1	1	2
DIZE AWNING TENT CO	1	1	2
DIZE COMPANY	3	3	6
DOOSAN INFRACORE PORTABLE POWER - A DIVISION OF C	2	2	4
DOUGHTON MFG CO	3	3	6
DOW CORNING CORP		11	11
DUKE UNIVERSITY	13	13	26
DUPONT SPECIALTY PRODUCTS USA LLC	1	1	2
DURHAM ACADEMY	8	8	16
DURHAM BULLS	2	2	4
DURHAM COCA COLA	3	3	6
DURHAM COUNTY HOSPITAL CORPORATION	1	1	2
DURHAM ID PHASE 1 DEVELOPER LLC	1	1	2
DURHAM OB GYN	3	3	6
DURHAM PUBLIC SCHLS	107		107
DURHAM TECH COMM COL	2		2
DURHAM TW ALEXANDER LLC	1	1	2
DYNAYARN USA, L.L.C.	1	1	2
DYSTAR LIMITED PARTNERSHIP	1	1	2
DYSTAR LP	6	6	12
E J VICTOR INC	1	1	2
EARTH FARE INC	3	3	6
EAST COAST LUMBER CO	1	1	2
EAST DECK INC	1	1	2
EAST WILKES HIGH SCHOOL	5	5	10
EASTERN BAND OF CHEROKEE INDIANS	3	3	6
EATON CORP	2	2	4
ECMD INC	4	4	8
ECOFLO INC	3	3	6
EDS PALLETT WORLD INC	4	4	8
ELASTIC FABRICS OF AMERICA	2	1	3
ELECTRIC GLASS FIBER AMERICA,LLC	3	4	7
ELECTROLUX HOME PRODUCTS	2	2	4
ELECTROLUX HOME PRODUCTS, INC	2	2	4
ELEVATE TEXTILES, INC		1	1
ELITE COMFORT SOLUTIONS LLC	1	1	2
ELITE DISPLAYS & DESIGN INC	3	3	6
ELLIS LUMBER CO	3	3	6
ELON UNIVERSITY	66	66	132
EMC CORPORATION	2	2	4

EMERGEORTHO, P.A	1	1	2
ENDURA PRODUCTS INC	5	5	10
ENGINEERED CONTROLS INTERNATIONAL INC	4	4	8
ENGINEERED RECYCLING COMPANY, LLC	4	4	8
EPA		6	6
ESSENTRA PACKAGING US, INC	1	5	6
ETHAN ALLEN OPERATIONS INC	2	2	4
EVANS,JAMES R	1	1	2
EWE WAREHOUSE INVESTMENTS XXXIII LTD	4	4	8
FAIRFIELD CHAIR CO	6	3	9
FAIRYSTONE FABRICS	4	4	8
FAIST CHEMTEC INC	2	2	4
FAMILY DOLLAR STORES OF NORTH CAROLINA INC	4	4	8
FEDERAL RES BANK	1		1
FERGUSON SUPPLY & BOX	1	1	2
FFNC INC	5	5	10
FIBER & YARN PRODUCTS, INC	1	2	3
FIBER COMPOSITES CORPORATION	2	4	6
FIBRIX, LLC	2	2	4
FIDDLIN FISH BREWING COMPANY LLC	1	1	2
FIDELITY REAL ESTATE COMPANY, LLC	6	6	12
FIDELITY REAL ESTATE LLC	1	1	2
FILTRONA GREENSBORO, INC	5	5	10
FIRESTONE FIBERS & TEXTILES COMPANY, LLC	2	2	4
FIRST CITIZENS BANK & TRUST CO	1	1	2
FIRST PRESBY CHURCH	4	4	8
FISERV SOLUTIONS INC	1	1	2
FLEXENTIAL CORP	2	2	4
FLOW PROPERTIES	1		0
FLOWERS BAKERY OF WINSTON SALEM LLC	4	4	8
FLOWERS BAKING COMPANY	1	1	2
FLYNT AMTEX INC	1	1	2
FMC-LITHIUM CORP	1	1	2
FOCKE & CO, INC	1		1
FOOD LION	224	179	403
FORESTVIEW HIGH SCHOOL PTA	1		1
FORSYTH TECHNICAL COLLEGE	10	7	17
FOSS AUTO RECYCLING INC	5	5	10
FREUDENBERG PERFORMANCE MATERIALS LP	4	4	8
FRIENDLIEST HOTEL, LLC	1		1
FRITO-LAY, INC	1	1	2
FRONTIER COMMUNICATIONS CORPORATE SERVICES, INC	7	7	14
FRONTIER SPINNING MILLS, INC		2	2
FRYE REGIONAL MEDICAL CENTER	6	5	11
FUJITSU AMERICA INC	1	1	2
FULLSTEAM BREWERY, LLC	1		1
FUNDER AMERICA INC	5	5	10
FURNITURELAND SOUTH	10	10	20
GALENOR DESIGNS, LLC	1	1	2
GALVAN INDUSTRIES INC	7	5	12
GARDNER WEBB UNIV	1	1	2
GASTON CO SCHOOLS	37	35	72

GASTON COLLEGE	8	8	16
GATEWAY RESEARCH PARK, INC	4	4	8
GBORO NEWS & RECORD	2	2	4
GE LIGHTING SOLUTIONS LLC	6	6	12
GENERAL ELECTRIC	2	2	4
GENPAK LLC	5	6	11
GENUINE PARTS COMPANY	2		2
GEORGIA-PACIFIC MT HOLLY LLC	1	1	2
GERDAU AMERISTEEL US INC	2	2	4
GETRAG GEARS OF NA	2	2	4
GF LINAMAR LLC	2	2	4
GIGA DATA CENTER - 1 LLC	2	2	4
GIGA DATA CENTER CLT1	1	1	2
GILBARCO INC	1	1	2
GILDAN ACTIVEWEAR (EDEN) INC	4	2	6
GILDAN YARNS, LLC		1	1
GILKEY LUMBER CO INC	7	6	13
GKN DRIVELINE NORTH AMERICA, INC	1	1	2
GKN SINTER METALS	1	1	2
GLEN HIGH SCHOOL	1	1	2
GLEN RAVEN INC	1	1	2
GLOBAL TEXTILE ALLIANCE INC	5	5	10
GOLDING FARMS FOODS	2	2	4
GOODWILL INDUSTRIES OF NW NC		1	1
GRANDEUR MFG	1	1	2
GRANGES AMERICAS INC	1	1	2
GRASCHE USA	1		1
GRASS AMERICA INC	4	4	8
GRAY MANUFACTURING TECHNOLOGIES LLC	2	2	4
GREENE STREET HOLDINGS	2	2	4
GREENEST HOTEL LLC	1		1
GREENSBORO COLLEGE	13	13	26
GREER LABORATORIES INC	4	1	5
GRIFFIN INDUSTRIES	2	2	4
GRIFOLS THERAPEUTICS INC	1	1	2
GUILFORD COLLEGE	42	30	72
GUILFORD COUNTY	8	8	16
GUILFORD COUNTY SCHOOLS	236	234	470
GUILFORD CTY SCH	1		1
GUILFORD TECH COMM COLL	16	15	31
H ALVIS FAUST	2	2	4
H B D INC	1	1	2
HAECO CABIN SOLUTIONS	9	9	18
HAN FENG INC		1	1
HANES COMPANIES INC	3	2	5
HANES DYE & FINISHING	1	1	2
HANWHA ADVANCED MATERIALS AMERICA LLC	1	1	2
HARRIS TEETER INC	91	87	178
HASHMASTER TECH, LLC		1	1
HAYWARD INDUSTRIES, INC	3	3	6
HENDERSON COUNTY GOVERNMENT	5	5	10
HENDERSON COUNTY SCHOOLS	17	15	32

HENDERSONVILLE HEALTH & REHAB	1	1	2
HENKEL CORPORATION	6	6	12
HERBALIFE INTERNATIONAL OF AMERICA INC	1	1	2
HERITAGE HOME GROUP LLC	2	4	6
HERRON TEST LAB INC	1	1	2
HICKORY CITY SCHOOLS	13	12	25
HICKORY PRINTING SOLUTIONS, LLC	2	2	4
HICKORY SPRINGS MANUFACTURING COMPANY	21	23	44
HIGH ASSOCIATES, LTD	2	2	4
HIGH COUNTRY LUMBER AND MULCH LLC		2	2
HIGH DEFINITION TOOL CORPORATION	1	1	2
HIGHLAND INDUSTRIES INC	4	4	8
HIGHWOODS PROPERTIES	51	1	52
HIGHWOODS REALTY LIMITED PARTNERSHIP	1		1
HIGHWOODS REALTY LTP	1		1
HILL HOSIERY MILLS	2	2	4
HISTORIC REVOLUTION LLC	3	2	5
HITACHI METALS NC LTD	1	1	2
HOME DEPOT	18	2	20
HONDA POWER EQUIPMENT MFG, INC		1	1
HS MALLARD CREEK CENTER LLC	1	1	2
HSRE-HOCK PLAZA LLC	2	2	4
HTA-MOREHEAD MOB, LLC	1	1	2
HUGH CHATHAM MEM HOSPITAL	37	37	74
HUITT MILLS,INC	2	2	4
HUMACYTE INC	2	2	4
HUNTSMAN INTERNATIONAL LLC	2	2	4
IAC OLD FORT II LLC	1	2	3
IAC OLD FORT, LLC	2		2
IBM CORPORATION	5	4	9
IGM RESINS USA INC		1	1
IMAGES OF AMERICA	2	2	4
IMC-METALSAMERICA, LLC	1	1	2
IMERYS MICA KINGS MOUNTAIN INC	7	7	14
INDEPENDENT BEVERAGE CORPORATION	7	7	14
INDUSTRIAL WOOD PROD	3	3	6
INDUSTRIAL WOOD PRODUCTS	3	3	6
INFO-GEL, LLC	3	3	6
ING CLARION REALTY SERVICES LLC	5	5	10
INGERSOLL-RAND COMPANY	5	5	10
INGLES MARKETS, INC.	59	59	118
INGREDION INCORPORATED	1	1	2
INSTEEL INDUSTRIES, INC	2	2	4
INSTITUTION FOOD HOUSE, INC	7	7	14
INTELLIGENT IMPLANT SYSTEMS	1	1	2
INTERNATIONAL PAPER COMPANY	6	5	11
INTERNATIONAL TEXTILE GROUP INC		1	1
INTERTECH CORP	1	1	2
IPEX USA, INC	2	1	3
IQE INC	3	3	6
IRVING PARTNERS, LTD	1	1	2
ISOTHERMAL COMMUNITY COLLEGE	5	5	10

ITG BRANDS LLC	2	2	4
ITL LLC	2	2	4
J C PENNEY CO	5	5	10
J E HERNDON CO	1	1	2
JACKSON BOE	7	7	14
JACKSON CREEK MFG INC	2	2	4
JACKSON PAPER MFG CO	1	1	2
JAMES M PLEASANTS CO	1		1
JAMESTOWN YMCA	1	1	2
JDL CASTLE CORP	1	1	2
JOHN JENKINS CO	1	1	2
JOHN UMSTEAD HOSPITAL		5	5
JOHNSON & WALES UNIVERSITY	3	3	6
JOHNSON CONTROLS BATTERY GROUP, INC	1	1	2
JOHNSON CONTROLS INC	3		3
JOWAT CORPORATION	8	8	16
JPS COMPOSITE MATERIALS CORP		1	1
KAYSER ROTH CORPORATION	2	2	4
KBSIII CARILLON LLC	1	1	2
KEN SMITH YARN CO	1	1	2
KENDRION-SHELBY	2	2	4
KERRS HICKORY READY MIXED CONCRETE COMPANY INC	2	2	4
KEYSTONE FOODS LLC	2	2	4
KEYSTONE POWDERED ME	1	1	2
KIMBERLY CLARK	5	5	10
KINCAID FURNITURE	12	12	24
KINDER MORGAN SOUTHEAST TERMINAL	2	2	4
KINDER MORGAN TRANSMIX GROUP	1	1	2
KINDRED HOSPITALS EAST LLC	2	2	4
KINGS MOUNTAIN INTERNATIONAL INC	2	2	4
KOHL'S DEPARTMENT STORES		1	1
KOOPMAN DAIRIES INC	2	2	4
KOURY CORPORATION	58	58	116
KOURY VENTURES	5	5	10
KROGER CO	1	1	2
KROGER LIMITED PARTNERSHIP I	1	1	2
KSM CASTINGS USA INC	2	2	4
KURZ TRANSFER PRODUCTS LP	5	5	10
KYOCERA INTERNATIONAL INC	1	1	2
L B PLASTICS INC	8	8	16
L S STARRETT CO	2	4	6
LAB CORP	8	8	16
LABELTECH INCORPORATED	2	2	4
LABORATORY CORPORATION OF AMERICA	1	1	2
LABORATORY CORPORATION OF AMERICA HOLDINGS	1		1
LAKE HICKORY COUNTRY CLUB	6	6	12
LANXESS CORP		3	3
LANXESS SOLUTIONS US INC	1	1	2
LEE INDUSTRIES	3	3	6
LEESONA CORP	1	1	2
LEGION BREWING COMPANY LLC	2	2	4
LELOUDIS LIONTIS, LLC	1	1	2

LEMCO MILLS INC	2	2	4
LENNY BOY LLC	1	1	2
LENOVO (UNITED STATES) INC	1	1	2
LEXINGTON FURNITURE IND	2	3	5
LIBERTY COMMONS NURSING AND REHABILITATION CENTI	1	1	2
LIBERTY HARDWARE	3	2	5
LIBERTY HEALTHCARE PROPERTIES OF BALLANTYNE LLC	1	1	2
LIBERTY HEALTHCARE PROPERTIES OF MECKLENBURG COU	1	1	2
LIDL US OPERATIONS LLC	1	1	2
LIDL US OPERATIONS, LLC	4	4	8
LIGGETT GROUP INC	1	1	2
LINCOLN COMM HEALTH	1	1	2
LINDE LLC	1	1	2
LINDYS HOMEMADE, LLC	1	1	2
LOPAREX LLC	2	2	4
LOTUS BAKERIES US MANUFACTURING, LLC	2	2	4
LOUISIANA-PACIFIC CORPORATION	1	1	2
LOWES FOODS	42	42	84
LOWE'S HOME CENTERS, INC	90	89	179
LOWE'S OF FRANKLIN #717	2	2	4
LOWE'S OF FRANKLIN #717	1	1	2
LTF CONSTRUCTION COMPANY LLC	1		1
LUBRIZOL ADVANCED MATERIALS INC	3	2	5
LUTHERAN RETIREMENT MINISTRIES OF ALAMANCE CO	10	10	20
LYDALL THERMAL ACOUSTICAL INC	4	1	5
MACK CONSOLIDATED CENTER LLC	3	3	6
MAERSK INC	1	1	2
MAGNOLIA CASTLE LLC	1	1	2
MANN+HUMMEL FILTRATION TECHNOLOGY US LLC	2	2	4
MANNINGTON WOOD FLOORS	1		1
MANUAL WOODWORKERS & WEAVERS INC	2	2	4
MARKET AMERICA	3	3	6
MARSH FURNITURE CO	4	3	7
MARTIN MARIETTA MATERIALS INC	68	71	139
MARVEL-SCHEBLER AIRCRAFT CARBORATORS	2	2	4
MARVES INDUSTRIES, LLC	1	1	2
MASONIC & EASTERN STAR HOME	3	3	6
MATERIAL HANDLING INDUSTRY	1	1	2
MAUSER CORP		4	4
MAY DEPT STORE	5	5	10
MAYFLOWER VEHICLE SYSTEMS,LLC	2	1	3
MCCOMB INDUSTRIES LLLP	2	2	4
MCCREARY MODERN INC	8	5	13
MCDOWELL HOSPITAL INC	1		1
MCLEOD LEATHR & BELT	1	1	2
MCMICHAEL MILLS INC	2	2	4
MDI MANAGEMENT	1		1
MEAT AND SEAFOOD SOLUTIONS LLC		7	7
MECK AREA CATH SCHLS		3	3
MECK CNTY JAIL CENTRAL	1		1
MECKLENBURG COUNTY	21	10	31
MEDI MFG INC	2	2	4

MERCHANTS DISTRIBUTORS , LLC	1	1	2
MERCK SHARP & DOHME CORP	4	4	8
MERCY HOSPITAL, INC	1	1	2
MEREDITH WEBB PRINT	3	3	6
MERIDIAN BRICK, LLC	1	1	2
MERIDIAN HOSPITALITY HOLDINGS LLC	1	1	2
MERIDIAN LABORATORY CORP	2	2	4
MERITOR HEAVY VEHICLE SYSTEMS	1	1	2
MERITOR HEAVY VEHICLE SYSTEMS LLC	1	1	2
MESSER LLC	1	1	2
METALS USA CARBON FLAT ROLLED INC	2	1	3
METROLINA GREENHOUSES INC	20	20	40
MICHELIN AIRCRAFT TIRE CO	1	1	2
MICHELIN NORTH AMERICA	7	7	14
MILES TALBOTT	2	2	4
MILLERCOORS LLC	1	1	2
MILLIKEN & COMPANY	2	2	4
MINNESOTA MINING & MFG CO	2	2	4
MINT MUSEUM OF CRAFT & DESIGN	1	1	2
MITCHELL GOLD CO	4	4	8
MODERN DENSIFYING		2	2
MOM BRANDS COMPANY, LLC	1	1	2
MOORE WALLACE NORTH AMERICA INC	1	1	2
MOORESVILLE CITY SCHOOLS	8	8	16
MOORESVILLE ICE CREAM COMPANY LLC	1	1	2
MORINAGA AMERICA FOODS INC		1	1
MORRISETTE PAPER COMPANY INC	2		2
MORTON CUSTOM PLASTICS, LLC	2	2	4
MOSES CONE HEALTH SYS	16	16	32
MOUNT VERNON MILLS INC	1	1	2
MULTI SHIFTER INC	1	1	2
N C FOAM IND INC	1		1
NATIONAL CONTAINER GROUP	1	1	2
NATIONAL GENERAL MANAGMENT CORP.	5	5	10
NATIONAL GYPSUM CO	1	1	2
NATIONAL PIPE & PLASTIC, INC	1	1	2
NATIONAL PIPE & PLASTICS	2	2	4
NC A&T UNIV FOUNDATION	1	1	2
NC BAPTIST HOSPITAL	8	8	16
NC BLUMENTHAL PAC	2	2	4
NC CENTER FOR PUBLIC TV	7	7	14
NC CENTRAL UNIVERSITY	1	1	2
NC DEPT OF HEALTH & HUMAN SERVICES	29	29	58
NC DEPT OF PUBLIC SAFETY	23	23	46
NC OWNER LLC	1		1
NC STATE UNIVERSITY	1	1	2
NCFLA II OWNER LLC	3		3
NEPTCO INC	3	3	6
NETAPP, INC	2	2	4
NEW EXCELSIOR, INC		1	1
NEW GENERATION YARNS		2	2
NEW SOUTH LUMBER COMPANY INC	3	3	6

NFI INDUSTRIES INC	1		1
NGK CERAMICS USA	2	2	4
NIAGARA BOTTLING LLC	1	1	2
NORAFIN AMERICAS INC	2	2	4
NORDFAB	5	5	10
NORDIC WAREHOUSE INC	1	1	2
NORDSTROM INC	2	1	3
NORFOLK SOUTHERN	2	2	4
NORTH STATE FLEXIBLES, LLC	3	3	6
NORTHERN HOSP OF SURRY CO	2	2	4
NORTHROP GRUMMAN GUIDANCE & ELECTRONICS COMP,	2	2	4
NOVANT HEALTH INC	26	26	52
NOVOZYMES NORTH AMERICAN INC	1	1	2
NR CHARLOTTE LLC	1	1	2
NW BALLANTYNE ONE LP	1	1	2
NW BALLANTYNE THREE LP	1	1	2
NW BALLANTYNE TWO LP	1	1	2
NW BETSILL BUILDING LP	1	1	2
NW BOYLE BUILDINGS LP	2	2	4
NW BRIXHAM GREEN ONE LP	1	1	2
NW BRIXHAM GREEN THREE LP	2	2	4
NW BRIXHAM GREEN TWO LP	1	1	2
NW CALHOUN BUILDING LP	1	1	2
NW CHANDLER BUILDING LP	1	1	2
NW CRAWFORD BUILDING LP	1	1	2
NW CULLMAN PARK LP	1	1	2
NW EVERETT BUILDING LP	1	1	2
NW FRENETTE BUILDING LP	1	1	2
NW GIBSON BUILDING LP	1	1	2
NW GRAGG BUILDING LP	1	1	2
NW HALL BUILDING LP	1	1	2
NW HAYES BUILDING LP	1	1	2
NW HIXON BUILDING LP	1	1	2
NW IRBY BUILDING LP	1	1	2
NW JJH BUILDING LP	2	2	4
NW MEDICAL TWO LP	1	1	2
NW RICHARDSON BUILDING LP	1	1	2
NW SIMMONS BUILDING LP	2	2	4
NW WINSLOW BUILDING LP	1	1	2
NW WOODWARD BUILDING LP	1	1	2
NWBH 1 LP	2	2	4
NYPRO CAROLINA	3	2	5
O T SPORTS IND INC	1	1	2
OAK FOREST HEALTH AND REHABILITATION CO	1	1	2
O'MARA, INC.	1	1	2
OMNISOURCE SOUTHEAST	5	6	11
OMNOVA SOLUTIONS		1	1
ONEAL STEEL INC	4	4	8
OPTICAL EXPERTS MANUFACTURING	1	1	2
ORACLE FLEXIBLE PACKAGING	1	1	2
OTTO INDUSTRIES	2	2	4
OWASA	9	8	17

OWENS & MINOR DISTRIBUTION INC		1	1
OWENS & MINOR INC.		1	1
OWENS & MINOR MEDICA	1	1	2
OWENS ILLINOIS, INC	2	2	4
P G DRY KILN CO	1	1	2
P G MACHINE SHOP	1	1	2
PACKRITE LLC	5	5	10
PACTIV LLC		3	3
PALLETONE OF NC	6	6	12
PANTHERS STADIUM, LLC	1	1	2
PAPER STOCK DEALERS	1	1	2
PARDEE MEMORIAL HOSPITAL	8	8	16
PARK HUNTERSVILLE PARTNERS, LLC	3	3	6
PARK RIDGE HOSPITAL	8	9	17
PARKDALE AMERICA LLC	8	8	16
PARKDALE MILLS, INC	2	3	5
PARKER HANNIFIN CORPORATION	9	9	18
PARMER RTP, LLC	2	2	4
PARTON LUMBER CO	6	8	14
PATRICK YARN MILL		1	1
PBM GRAPHICS INC	5	5	10
PENN ENG & MANF CORP	2	2	4
PEPSI BOTTLING VENTURES, LLC	7	7	14
PERFORMANCE LIVESTOCK & FEED CO, INC.	1	1	2
PERMA TECH INC	1	1	2
PHARR YARNS, LLC	4	4	8
PIEDMONT CHEMICAL	2	2	4
PIEDMONT PUBLISHING	1	1	2
PIEDMONT ROW DRIVE, LLC	11	11	22
PIEDMONT TRIAD REG WATER AUTH		4	4
PIERRE FOODS	7	7	14
PILGRIM ASSOCIATES	2	2	4
PINE HALL BRICK COMPANY, INC	2	2	4
PINE NEEDLE LNG COMPANY	1	1	2
PIONEER COMMUNITY HOSPITAL OF STOKES	1	1	2
PIONEER DIVERSITIES CO	1		1
PITTSBURGH GLASS WORKS LLC	1	1	2
PLANTATION PIPE LINE	3	3	6
PLASTIC REVOLUTIONS	1	1	2
PLYCEM USA, INC	1	1	2
PNEUMAFIL CORPORATION	6	6	12
POLK COUNTY SCHOOLS	5	5	10
POLY PLASTIC PRODUCTS OF NC INC	5	5	10
POLYMER GROUP, INC	1	1	2
POPPELMANN PLASTICS USA LLC	1	1	2
PPG INDUSTRIES INC	2	2	4
PRECISION FABRICS GROUP INC	2	2	4
PRECOR MANUFACTURING LLC	1	1	2
PREFERRED APARTMENT COMMUNITIES OPERATING PART	5	5	10
PRESBYTERIAN HOMES,INC	9	9	18
PRESBYTERIAN HOSPITAL	9	9	18
PRESBYTERIAN MEDICAL CARE CORP	1	1	2

PRESTIGE FARMS	1	1	2
PRESTIGE FARMS INC	1	1	2
PRINCE MANUFACTURING CORP	1	1	2
PRINTCRAFT CO INC	1	1	2
PRINTPACK INC	1	1	2
PROCTER & GAMBLE MANUFACTURING COMPANY	5	5	10
PRO-SYSTEM, INC	1	1	2
PRYSMIAN CABLE AND SYSTEMS USA, LLC	1	1	2
PUBLIC LIBRARY MECK CO	2	2	4
PUBLIX NORTH CAROLINA LP	22	22	44
PUROLATOR FACET INC	4	3	7
QG PRINTING II LLC	4	4	8
QORVO US , INC	1	1	2
QORVO US INC	2	2	4
QUALICAPS INC	3	3	6
R & R POWDER COATING INC	1	1	2
RACK ROOM SHOES	1	1	2
RALEIGH RC GREEN LLC	3	3	6
RALPH LAUREN CORPORATION	4	4	8
RANDOLPH CO BD OF ED	36	36	72
RANDY D MILLER	7	7	14
RAUMEDIC INCORPORATED	1	1	2
RD AMERICA LLC	1	1	2
REEP IND MCP IV NC LLC	5	5	10
REGAL CINEMAS INC	5	5	10
REMATTR, INC	3	3	6
RENWOOD MILLS LLC		1	1
REPLACEMENTS LTD	7	7	14
REVOLUTION TENANT, LLC	2		2
RESEARCH TRIANGLE INSTITUTE		1	1
REYNOLDA MANUFACTURING SOLUTIONS, INC	4	4	8
RH MANUFACTURING LLC	2	2	4
RICHA INC	5	5	10
RITZ CARLTON CHARLOTTE	1	1	2
RJ REYNOLDS TOBACCO CO	5	5	10
ROCHLING ENGINEERED PLASTICS	3	3	6
ROCKINGHAM COMM COLLEGE	1	1	2
ROCKINGHAM COUNTY GOVERNMENT	2	2	4
ROCKINGHAM COUNTY SCHOOLS	4	3	7
ROCK-TENN CONVERTING COMPANY	1	1	2
ROGER MARK PENDLETON	4	4	8
RONNIE D MILES	1	1	2
ROUNDPOINT FINANCIAL GROUP	1		1
ROUSH & YATES RACING ENGINES, LLC	4	4	8
ROWAN COUNTY	4	4	8
ROWAN SALISBURY SCHOOLS	5		5
RUTHERFORD COUNTY SCHOOLS	3	2	5
RUTHERFORD HOSPITAL INC	5	5	10
SAFT AMERICA	4	4	8
SALEM ACADEMY & COLLEGE	14	14	28
SALEM BUSINESS PARK		1	1
SALISBURY MACHINERY	1	1	2

SAMS EAST INC	19	19	38
SANDVIK CORP	2	2	4
SANDY RDG GOLF CLUB	2	2	4
SANS TECHNICAL FIBERS, LLC	4	4	8
SAP ACQUISITION,LLC	5	5	10
SAPA BURLINGTON LLC	3	3	6
SCA PACKAGING NORTH AMERICA	2	2	4
SCHAEFER SYSTEMS	7		7
SCHERING-PLOUGH	1	1	2
SCHNEIDER MILLS, INC	1	1	2
SCM METAL PRODUCTS INC	3	3	6
SEALED AIR CORPORATION	1	1	2
SEALED AIR CORPORATION (US)	1	1	2
SEALED AIR CORPORATION US	1	1	2
SECURITY NATIONAL PROPERTIES HOLDINGS LLC	17	17	34
SELEE CORP	2	2	4
SELF HELP VENTURES FUND	1	1	2
SGL CARBON, LLC	1	1	2
SHAMROCK CORPORATION	4		4
SHAW INDUSTRIES GROUP, INC	3	3	6
SHEETZ DISTRIBUTION SERVICES LLC	1	1	2
SHERATON IMPERIAL	3	3	6
SHERRILL FURNITURE	4	5	9
SHERWIN WILLIAMS COMPANY	5	5	10
SHUFORD YARNS,LLC	2	2	4
SHURTAPE TECHNOLOGIES	7	7	14
SIEMENS ENERGY INC	2	3	5
SIEMENS ENERGY, INC	2	2	4
SIERRA NEVADA BREWING CO	1	1	2
S-L SNACKS NATIONAL , LLC	1	1	2
SLANE HOSIERY MILLS INC		1	1
SNIDER TIRE,INC	2	2	4
SOCIAL SECURITY ADMINISTRATION	1	1	2
SONESTA INTERNATIONAL HOTELS CORPORATION	1		1
SONOCO CORRFLEX D & P LLC	2	2	4
SONOCO CRELLIN INC	2	2	4
SONOCO PRODUCTS COMPANY	2	2	4
SOP 200 N COLLEGE OWNER GP LLC	1	1	2
SOUTH COLLEGE STREET LLC	1	1	2
SOUTH FORK INDUSTRIES	4	4	8
SOUTH GRANVILLE WATER AND SEWER AUTHORITY	3	3	6
SOUTH PARK MALL	12	6	18
SOUTHCORR PACKAGING	1	1	2
SOUTHEASTERN CONTAINER INC		2	2
SOUTHERN CAST	3	3	6
SOUTHERN FURNITURE	4	2	6
SOUTHERN METALS CO	7	3	10
SOUTHERN PIPE INC	1	1	2
SOUTHERN PRECISION SPRING CO INC	2	2	4
SOUTHWESTERN COMMUNITY COLLEGE	9	9	18
SPARTAN DYERS INC	2	2	4
SPECIALIZED PACKAGING FLEXO	1	1	2

SPECIALTY MANUFACTURING INC	1	1	2
SPECTRUM PROPERTIES MANAGEMENT COMPANY	7	7	14
SPEED CHANNEL INC	1	1	2
SPENCERS INCORPORATED OF MOUNT AIRY, NC	1		1
SPORTS MENAGERIE	2	2	4
SPORTS SOLUTIONS INC	2	2	4
SPRINT	1	1	2
SPX FLOW INC.	1	1	2
SRPF A/300 SOUTH BREVARD LLC	1	1	2
ST LUKES HOSPITAL	2	2	4
STAMPSOURCE	1	1	2
STANDARD TOOLS AND EQUIPMENT	2	2	4
STANLEY TOTAL LIVING CENTER	1	1	2
STAPLES INC	2	2	4
STAR PAPER TUBE INC	1		1
STARPORT I,LLC	1	1	2
STARWOOD RETAIL PARTNERS	1	1	2
STEEL SPECIALTIES	2	2	4
STEFANO FOODS	3	3	6
STEWART SUPERABSORBENTS, LLC	1		1
STONEFIELD CELLARS WINERY LLC	1	1	2
STONEVILLE LUMBER CO	2	2	4
STURM RUGER & CO INC	2	2	4
SUMITOMO ELECTRIC ESC, INC	1	1	2
SUNCOM WIRELESS PCS, INC		3	3
SUNSET HILL INVESTMENTS LLC	1	1	2
SUNTERRACE CASUAL FURNITURE, INC	2	1	3
SUNTRUST BANKS INC	1	1	2
SV CENTER LLC	2	2	4
SWAIN COUNTY SCHOOLS	6		6
SWIFT BEEF COMPANY	1	1	2
SYCAMORE BREWING LLC	1	1	2
SYNCOT PLASTICS, INC	5	5	10
SYNERGY RECYCLING LLC		2	2
SYNGENTA CROP PROTECTION, INC	9	9	18
SYNGENTA CROP PROTECTION, LLC	1		1
SYNTAX SYSTEMS USA, LP	2	4	6
SYNTEC SEATING SOLUTIONS LLC	1	1	2
SYNTHETICS FINISHING	9	9	18
T5@KINGS MOUNTAIN II, LLC	1	1	2
T5@KINGS MOUNTAIN VII LLC	2	2	4
TALBERT BUILDING SUPPLY INC	1	1	2
TARGET STORES	23	6	29
TAYLOR BROS	6	6	12
TAYLOR INVESTMENT PROPERTIES, LLC	3	3	6
TAYLOR KING FURNITUR	2	1	3
TCG OF THE CAROLINAS	1	1	2
TDY INDUSTRIES LLC	1	1	2
TE CONNECTIVITY CORPORATION	15	15	30
TEAM INDUSTRIES	1	1	2
TECHNIBILT LTD	3	3	6
TECHNICAL PRECISION PLASTICS	8	8	16

TECHNIMARK LLC	11	11	22
TELERX MARKETING INC	1	1	2
TERRA-MULCH PRODUCTS, LLC	3	4	7
TEX TECH COATINGS LLC	4	4	8
THE CHARLOTTE-MECKLENBURG HOSPITAL AUTHORITY	2	2	4
THE CLEARING HOUSE PAYMENTS COMPANY LLC	1	1	2
THE CYPRESS OF CHARLOTTE CLUB, INC	11	11	22
THE DAVID H MURDOCK CORE LABORATORY BUILDING OW	1	1	2
THE EXCHANGE AT MEADOWMOUNT LLC	1	1	2
THE EXCHANGE EAST LLC	1	1	2
THE FRESH MARKET	1	1	2
THE GC NET LEASE (CHARLOTTE) INVESTORS LLC	1		1
THE INSPIRATIONAL NETWORK INC	2	2	4
THE LINCOLN NATIONAL LIFE INSURANCE COMPANY	2	2	4
THE NC A&T UNIVERSITY	1	1	2
THE NC AT UNIVERSITY A&T FOUNDATION LLC	1	1	2
THE NC OFFICE OF INFORMATION TECHNOLOGY SERVICES	3	3	6
THE POLYMERS CENTER OF EXCELLENCE	2	2	4
THE TIMKEN COMPANY	3	3	6
THERMOFORM PLASTICS	1		1
THIEMAN MANUFACTURING TECHNOLOGIES LLC	1	1	2
THOMAS BUILT BUSES	3	3	6
THOMASVILLE,CITY OF	3	3	6
TICONA POLYMERS, INC	1	1	2
TIERPOINT, LLC	8	7	15
TIGHT LINES PARTNERS LLC	1	1	2
TIME WARNER CABLE SE LLC	15	15	30
TIME WARNER CABLE, INC.	1	1	2
TIMKENSTEEL CORPORATION	1	1	2
TJX COMPANIES	3	3	6
TKC MANAGEMENT SERVICES	2	2	4
TORINGDON OFFICE OWNER LLC	6	5	11
TOSAF USA, INC	1	1	2
TOSHIBA GLOBAL COMMERCE SOLUTIONS	1	1	2
TOWN OF CHAPEL HILL	3	2	5
TOWN OF HILLSBOROUGH	2	2	4
TOWN OF MOORESVILLE		3	3
TOWN OF VALDESE	3	3	6
TR 121 W TRADE LLC	1		1
TRANSCONTINENTAL GAS	1	2	3
TRANSCONTINENTAL HOLDING CORP	5	5	10
TRANSYLVANIA COMMUNITY HOSPITAL	1		1
TRANSYLVANIA COUNTY SCHOOLS	11	11	22
TRELLEBORG COATED SYSTEMS US, INC	1	1	2
TREND OFFSET PRINTING SERVICES INC	4	5	9
TRIAD CENTER GREENSBORO OFFICE, LLC	1	1	2
TRIAD HOSPITALITY CORPORATION	1	1	2
TRIAD WINDOW DES & I	1	1	2
TRIBAL CASINO GAMING ENTERPRISES HARRAH'S CASINO }	1		1
TRIDENT GRAPHICS NA LLC	1	1	2
TRISTONE FLOWTECH USA INC	1	1	2
TROPICAL NUT & FRUIT CO	1	1	2

TRUE TEXTILES, INC		1	1
TRYON PROPERTY OWNER LLC	2	2	4
TUBULAR TEXTILE MACH	1	1	2
TURBOCOATING CORP	1	1	2
TYSON FARMS INC	21	21	42
U S POSTAL SERVICE	5	5	10
U.S. COTTON, LLC	2	2	4
ULTIMATE TEXTILE INC	2	2	4
UNC - CHAPEL HILL	11	11	22
UNC GREENSBORO	25	25	50
UNC ROCKINGHAM HEALTH CARE	3	3	6
UNC SCHOOL OF THE ARTS	34	34	68
UNCC	16	16	32
UNDERWRITERS LABORATORIES	1	1	2
UNIFI INC	1	1	2
UNIFI MANUFACTURING, INC	3	5	8
UNILIN FLOORING NC LLC	3	3	6
UNILIN NORTH AMERICA, LLC	1	1	2
UNION COUNTY PUBLIC SCHOOLS	2	2	4
UNIQUETEX	1	1	2
UNITED PARCEL SERV	5	4	9
UNITED STATES COLD STORAGE	1	1	2
UNITED THERAPEUTICS CORPORATION	2	2	4
UNIVERSAL FOREST PRODUCTS	2	2	4
UNIVERSITY OF NC HOSPITALS	10	10	20
UPM - RAFLATAC, INC	1	1	2
UPS LOGISTICS	1	1	2
US FOODS, INC	1	1	2
US NATIONAL WHITEWATER CENTER, INC	13	13	26
V F CORPORATION	2		2
VALASSIS COMMUNICATIONS	1	1	2
VALDESE WEAVERS	6	6	12
VALLEY HILLS MALL	9	9	18
VANGUARD FURNITURE INC	8	8	16
VECO PLAN, LLC		1	1
VERIZON WIRELESS	5	5	10
VF JEANSWEAR LIMITED PARTNERSHIP	1	1	2
VF SERVICES INC	1	1	2
VIC INC	1	1	2
VULCAN CONSTRUCTION MATERIALS, L P	49	48	97
W S FORSYTH COUNTY SCHOOLS	89	64	153
W&G ASSOCIATES	2	2	4
WAGER,ROBERT CO,INC	4	4	8
WAKE FOREST UNIVERSITY	4	4	8
WAKE FOREST UNIVERSITY HEALTH SCIENCES	11	11	22
WAL-MART STORES EAST,LP	83	84	167
WALNUT CIRCLE PRESS	2	2	4
WATTS REGULATOR COMPANY	8	8	16
WAYNE FARMS LLC	15	15	30
WBTV LLC	2	2	4
WCCB TV INC	2	2	4
WEIL MCLAIN	2	2	4

WELDING UNLIMITED IN	1	1	2
WELL SPRING RET	5	5	10
WELLNESS CTR OF WRMC	1	1	2
WELLS FARGO BANK NA	9	8	17
WELLSPRING RETIREMNT COMM INC	5	5	10
WESTERN CAROLINA UNIVERSITY	1	1	2
WESTROCK COMPANY	4	4	8
WESTROCK CONVERTING COMPANY	28	28	56
WEYERHAEUSER COMPANY	1	1	2
WFC PROPERTY, LLC	1	1	2
WFMY TV INC	2	2	4
WHOLE FOODS MARKET	5	5	10
WIELAND COPPER PRODUCTS LLC	1	1	2
WILDERNESS N.C., INC.	3	2	5
WILKES COUNTY BOARD OF EDUCATION	18	18	36
WILKES REGIONAL MED CTR	10	9	19
WILSON COOK MEDICAL	7	7	14
WINDWARD PRINT STAR INC	1	1	2
WINGATE UNIVERSITY	18	18	36
WINSTON SALEM STATE UNIVERSITY	21	21	42
WINSTON TOWER MAIN LLC	1	1	2
WIPRO DATA CENTER AND CLOUD SERVICES, INC	1	1	2
WOODEN ROBOT BREWERY LLC	4	4	8
WOODGRAIN MILLWORK INC	3	3	6
WORLD MEDIA ENTERPRISES, INC	1	1	2
WSOC TELEVISION INC	4	4	8
WXII TELEVISION	1	1	2
YESTERYEARS BREWERY LLC	1	1	2
YMCA GREENSBORO	7	7	14
YMCA OF NORTHWEST NORTH CAROLINA	4	4	8
ZINK IMAGING INC	1	1	2
Grand Total	5,537	4,962	10,498

Duke Energy Carolinas, LLC
List of Industrial and Commercial Customers Opted Into Vintage 2019
Docket E-7, Sub 1230

Customer Bill Name	Number of Accounts	
	DSM YR 19 (Jan 1-Dec 31)	EE YR 19 (Jan 1-Dec 31)
BAKERS INTERIORS FURNITURE COMPANY	1	3
BIC CORPORATION	1	
CAROLINAS HEALTHCARE SYSTEM	1	
CITY OF SALISBURY	1	
CORE SCIENTIFIC		1
FOOD LION	2	
GENPAK LLC		1
HANES COMPANIES	1	
HASHMASTER TECH, LLC		1
HICKORY SPRINGS MANF. COMPANY		1
HICKORY SPRINGS MANUFACTURING CO		1
HIGH COUNTRY LUMBER AND MULCH, LLC		1
HOME DEPOT	18	
MCCREARY MODERN INC	1	
MECKLENBURG COUNTY	1	
STEWART SUPERABSORBENTS	1	
TREND OFFSET PRINTING		2
Grand Total	28	11

Duke Energy Carolinas, LLC
Shared Savings Incentive Calculation
Docket Number E-7, Sub 1230
Estimate January 1, 2021 - December 31, 2021

		<u>System</u>
NPV of AC - Res EE ¹		\$ 78,209,012
NPV of AC - Non Res EE		163,026,017
NPV of AC - DSM		129,908,853
Total NPV of Avoided Costs	A	\$ 371,143,881
Program Costs - Res EE ¹		\$ 42,757,938
Program Costs - Non Res EE		52,352,927
Program Costs - DSM		40,153,124
Total Program Costs	B	\$ 135,263,988
Net Savings	C=A-B	\$ 235,879,893
Sharing Percentage	D	11.50%
Shared Savings - Res EE		\$ 4,076,874
Shared Savings - Non Res EE		12,727,405
Shared Savings - DSM		10,321,909
Total Shared Savings	E=(A-B)*D	\$ 27,126,188

1) Excludes AC and Program Costs associated with Income Qualified Energy Efficiency and Weatherization Assistance, which is deemed to be cost recovery only.

EM&V Activities

Planned Evaluation, Measurement and Verification (EM&V) Activities through the rate period (Dec. 31, 2020)

Evaluation is a term adopted by Duke Energy Carolinas (DEC), and refers generally to the systematic process of gathering information on program activities, quantifying energy and demand impacts, and reporting overall effectiveness of program efforts. Within evaluation, the activity of measurement and verification (M&V) refers to the collection and analysis of data at a participating facility/project. Together this is referred to as “EM&V.”

Refer to the accompanying Evans Exhibit 12 chart for a schedule of process and impact evaluation analysis and reports that are currently scheduled.

Energy Efficiency Portfolio Evaluation

DEC has contracted with independent, third-party evaluation consultants to provide the appropriate EM&V support, including the development and implementation of an evaluation plan designed to measure the energy and demand impacts of the residential and non-residential energy efficiency programs.

Typical EM&V activities:

- Develop evaluation action plan
- Process evaluation interviews
- Collect program data
- Verify measure installation and performance through surveys and/or on-site visits
- Program database review
- Impact data analysis
- Reporting

The process evaluation provides unbiased information on past program performance, current implementation strategies and opportunities for future program improvements. Typically, the data collection for process evaluation consists of surveys with program management, implementation vendor(s), program partner(s), and participants; and, in some cases, non-participants. A statistically representative sample of participants will be selected for the analysis.

The impact evaluation provides energy and demand savings resulting from the program. Impact analysis may involve engineering analysis (formulas/algorithms), billing analysis, statistically adjusted engineering methods, and/or building simulation models, depending on the program and the nature of the impacts. Data collection may involve surveys and/or site visits. A statistically representative sample of participants is selected for the analysis. Duke Energy Carolinas intends to follow industry-accepted methodologies for all measurement and

verification activities, consistent with International Performance Measurement Verification Protocol (IPMVP) Options A, C or D depending on the measure.

The field of evaluation is constantly learning from ongoing data collection and analysis, and best practices for evaluation, measurement and verification continually evolve. As updated best practices are identified in the industry, DEC will consider these and revise evaluation plans as appropriate to provide accurate and cost-effective evaluation.

Demand Response Program Evaluation

DEC has contracted with independent, third-party evaluation consultants to provide an independent review of the evaluation plan designed to measure the demand impacts of the residential and non-residential demand response programs and the final results of that evaluation.

Typical EM&V activities:

- Collect program data
- Process evaluation interviews
- Verify operability and performance through on-site visits
- Collect interval data
- Program database review
- Benchmarking research
- Dispatch optimization modeling
- Impact data analysis
- Reporting

The process evaluation provides unbiased information on past program performance, current implementation strategies and opportunities for future improvements. Typically, the data collection for process evaluation consists of surveys with program management, implementation vendor(s), program partner(s), and participants; and, in some cases, non-participants. A statistically representative sample of participants will be selected for the analysis.

The impact evaluation provides demand savings resulting from the program. Impact analysis for Power Manager involves a simulation model to calculate the duty cycle reduction, and then an overall load reduction. Impact analysis for PowerShare involves statistical modeling of an M&V baseline load shape for a customer, then modeling the event period baseline load shape and comparing to the actual load curve of the customer during the event period.

The field of evaluation is constantly learning from ongoing data collection and analysis, and best practices for evaluation, measurement and verification continually evolve. As updated best practices are identified in the industry, DEC will consider these and revise evaluation plans as appropriate to provide accurate and cost-effective evaluation.

EM&V EFFECTIVE DATE TIMELINE

This chart contains the expected timeline with end of customer data sample period for impact evaluation and when the impact evaluation report is expected to be completed. Unless otherwise noted, original impact estimates are replaced with the first impact evaluation results, after which time subsequent impact evaluation results are applied prospectively.

Program	Program/Measure	2015				2016			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Appliance Recycling	Refrigerator, Freezer			2nd EM&V	Report				
Energy Efficiency Education (K12 Curriculum)	Energy Efficiency Education (K12 Curriculum)			3rd EM&V	Report				
Energy Efficient Appliance and Devices	Lighting - Smart Saver RCFL			3rd EM&V	Report				
	Lighting - Specialty Bulbs								
	SF Water EE Products			1st EM&V	Report				
HVAC Energy Efficiency	HP Water Heater & Pool Pumps								
	Residential Smart Saver AC and HP								
Income-Qualified Energy Efficiency	Tune & Seal Measures								
	Weatherization								
	Refrigerator Replacement								
Multi-Family Energy Efficiency	Low Income Neighborhood							2nd EM&V	Report
	MF Water EE Products			1st EM&V	Report			2nd EM&V	Report
My Home Energy Report	Lighting (CFL Property Manager)								3rd EM&V
Residential Energy Assessments	MyHER								
Non-Residential Smart Saver Energy Efficiency Custom	Home Energy House Call								
Non-Residential Smart Saver Energy Efficiency Food Service	Non-Res SmartSaver Custom Rebate								
Non-Residential Smart Saver Energy Efficiency HVAC Products	Non-Res Smart Saver Energy Efficiency Food Service								2nd EM&V
Non-Residential Smart Saver Energy Efficiency Lighting	Non-Res Smart Saver Energy Efficiency HVAC Products								2nd EM&V
	Non-Res Smart Saver Prescriptive Lighting								Report
Non-Residential Smart Saver Energy Efficiency Motors Pumps Drives	Non Re Smart Saver Prescriptive Other							1st EM&V	Report
	Non-Res Smart Saver Prescriptive (VFDs or other)								2nd EM&V
Non-Residential Smart Saver Energy Efficiency Process Equipment	Non-Res Smart Saver Prescriptive (VFDs or other)								2nd EM&V
Small Business Energy Saver	Non-Res Smart Saver Energy Efficiency Process Equip								
Smart Energy in Offices	SBES								
	SEIO								

Key

Original Estimate
1 st EM&V
2 nd EM&V
3 rd EM&V
4 th EM&V
5 th EM&V
6 th EM&V

Program	Program/Measure	2017				2018				2019				2020			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Appliance Recycling	Refrigerator, Freezer																
Energy Efficiency Education (K12 Curriculum)	Energy Efficiency Education (K12 Curriculum)								4 th EM&V	Report							5 th EM&V
Energy Efficient Appliance and Devices	Lighting - Smart Saver RLED (Free LED)			1st EM&V	Report												
	Lighting - Smart Saver Retail					1st EM&V	Report										
	Lighting - Specialty Bulbs							2nd EM&V	Report								
HVAC Energy Efficiency	SF Water EE Products			2nd EM&V	Report											3 rd EM&V	3 rd EM&V
	HP Water Heater & Pool Pumps					1 st EM&V	Report										
Income-Qualified Energy Efficiency	Referral and Non-Referral HVAC Measures					2nd EM&V	Report										
	Weatherization					1st EM&V	Report										2 nd EM&V
	Refrigerator Replacement					1st EM&V	Report										2 nd EM&V
Multi-Family Energy Efficiency	Low Income Neighborhood																2 nd EM&V
	Lighting & Water EE Products																2 nd EM&V
My Home Energy Report	Lighting & Water EE Products																Report
Residential Energy Assessments	MyHER	Report								4 th EM&V	Report						5 th EM&V
Business Energy Reports	Home Energy House Call																4 th EM&V
EnergyWise Business	BER				1st EM&V	Report											Report
Non-Residential Smart Saver Energy Efficiency Custom	EnergyWise Business (EE measure)	1st EM&V	Report							2nd EM&V	Report						
Non-Residential Smart Saver Prescriptive	Custom Rebate & Custom Assessment	Report								3rd EM&V	Report						4 th EM&V
Non-Residential Energy Assessment	All Prescriptive Technologies																Report
Small Business Energy Saver	All Prescriptive Technologies			1st EM&V	Report												
Smart Energy in Offices	SBES									2nd EM&V	Report						3 rd EM&V
	SEIO				1st EM&V	Report											

Note: Residential Smart Saver AC and HP and Non-Residential Prescriptive lighting measures have completed a additional EM&V report in the past. Future reports combine measures for the respective programs.

Program	Program/Measure	2021			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
Appliance Recycling	Refrigerator, Freezer				
Energy Efficiency Education (K12 Curriculum)	Energy Efficiency Education (K12 Curriculum)		6 th EM&V	6 th EM&V	Report
Energy Efficient Appliance and Devices	Lighting - Smart Saver RLED (Free LED)				
	Lighting - Smart Saver Retail				
	Lighting - Specialty Bulbs/Retail Marketplace			3 rd EM&V	Report
HVAC Energy Efficiency	SF Water EE Products				4 th EM&V
	HP Water Heater & Pool Pumps			2 nd EM&V	2 nd EM&V
Income-Qualified Energy Efficiency	Referral and Non-Referral HVAC Measures			3 rd EM&V	3 rd EM&V
	Weatherization				
	Refrigerator Replacement				
Multi-Family Energy Efficiency	Low Income Neighborhood				
	Lighting & Water EE Products				
My Home Energy Report	MyHER		5 th EM&V	Report	
Residential Energy Assessments	Home Energy House Call				
Business Energy Reports	BER				
EnergyWise Business	EnergyWise Business (EE measure)				
Non-Residential Smart Saver Energy Efficiency Custom	Custom Rebate & Custom Assessment	4 th EM&V	Report		
Non-Residential Smart Saver Prescriptive	All Prescriptive Technologies				5 th EM&V
Non-Residential Energy Assessment	All Prescriptive Technologies				
Small Business Energy Saver	SBES	Report			
Smart Energy in Offices	SEIO				

Duke Energy Carolinas, LLC
 Docket Number E-7, Sub 1230
 Actual Program and Avoided Costs, January 1, 2014 - December 31, 2019

Market	Program	2014		2015		2016		2017		2018		2019	
		Program Costs	Avoided Costs	Program Costs	Avoided Costs	Program Costs	Avoided Costs	Program Costs	Avoided Costs	Program Costs	Avoided Costs	Program Costs	Avoided Costs
Residential	Appliance Recycling Program	\$ 1,515,867	\$ 1,763,411	\$ 1,537,241	\$ 1,901,321	\$ (97,397)	\$ 59,758	\$ 5,307	\$ -	\$ -	\$ -	\$ -	\$ -
Residential	Energy Assessments	3,605,737	12,827,575	3,086,173	10,115,222	2,678,893	6,822,806	2,909,098	6,602,773	2,836,229	5,756,902	3,186,888	4,413,585
Residential	Energy Efficiency Education	1,963,153	5,079,938	2,054,672	2,498,417	2,126,509	3,695,507	2,077,611	3,597,724	1,992,260	2,863,507	1,684,083	2,519,645
Residential	Energy Efficient Appliances and Devices	14,738,129	52,276,512	12,050,485	49,525,402	24,069,774	82,262,218	30,340,728	105,352,687	42,687,244	135,857,936	41,380,987	102,051,327
Residential	Income Qualified Energy Efficiency and Weatherization Assistance	1,917,192	1,675,463	2,238,776	1,854,068	4,792,436	2,984,760	5,505,992	3,185,867	6,490,735	4,315,688	7,342,133	3,648,597
Residential	Multi-Family Energy Efficiency	1,442,533	5,306,321	2,092,935	7,431,163	2,518,988	8,950,706	3,168,422	13,539,656	3,604,921	13,857,877	3,680,155	11,891,700
Residential	My Home Energy Report	8,285,066	12,166,183	9,845,895	16,583,325	10,822,444	20,423,954	13,812,250	21,728,369	12,765,286	22,684,688	10,555,159	23,361,954
Residential	Power Manager	15,662,693	57,744,666	14,634,279	52,718,688	13,644,970	54,179,776	14,021,500	61,074,105	14,423,610	61,924,152	13,383,639	69,783,157
Residential	Residential - Smart Saver Energy Efficiency Program	4,786,807	7,061,500	5,416,833	6,816,479	7,839,566	7,476,100	7,403,327	7,287,263	6,955,146	7,088,531	7,400,669	7,079,940
Non-Residential	Business Energy Report	-	-	126,404	-	263,169	302,497	126,680	696	-	-	-	-
Non-Residential	Energy Management Information Services	74,855	-	-	-	-	-	-	-	-	-	-	-
Non-Residential	EnergyWise for Business (Non-Residential)	-	-	1,549,305	11,248	470,304	574,590	2,484,618	2,530,761	3,062,816	2,279,967	3,686,451	2,728,428
Non-Residential	Non Residential Smart Saver Custom	8,136,712	49,908,871	9,932,877	53,882,448	7,356,509	39,025,086	7,304,838	34,693,083	6,068,902	23,322,046	8,871,440	35,884,367
Non-Residential	Non Residential Smart Saver Energy Efficient IT Products	25,730	35,580	716,542	1,130,386	285,430	777,601	61,215	523	36,875	3,025	44,323	1,038
Non-Residential	Non Residential Smart Saver Custom Energy Assessments	1,458,195	6,858,644	660,420	321,686	2,034,308	9,572,687	2,139,875	10,272,302	407,293	67,306	295,925	691,285
Non-Residential	Non Residential Smart Saver Energy Efficient Food Service Products	199,350	1,489,862	194,425	1,099,734	324,117	2,474,312	306,488	959,251	235,605	431,679	339,904	364,227
Non-Residential	Non Residential Smart Saver Energy Efficient HVAC Products	815,339	5,224,765	1,142,522	6,221,217	1,473,991	3,344,669	1,560,769	2,958,336	1,620,748	2,810,168	2,207,760	4,481,911
Non-Residential	Non Residential Smart Saver Energy Efficient Lighting Products	6,727,675	40,866,018	11,335,798	42,227,035	39,622,944	120,392,639	66,689,770	240,054,511	25,872,380	146,534,847	20,829,118	97,967,602
Non-Residential	Non Residential Smart Saver Energy Efficient Process Equipment Products	89,809	660,330	88,823	517,342	125,947	279,184	162,413	530,295	67,509	226,725	119,811	310,293
Non-Residential	Non Residential Smart Saver Energy Efficient Pumps and Drives Products	584,874	3,629,866	466,478	1,924,058	471,930	1,574,965	528,937	3,070,044	277,785	1,617,749	189,123	510,415
Non-Residential	Non Residential Smart Saver Performance Incentive	-	-	-	-	35,670	-	320,559	8,958	479,610	1,671,793	784,949	2,238,186
Non-Residential	Power Share (Non-Residential)	15,520,492	55,293,377	15,779,050	48,383,622	14,291,024	43,889,394	13,316,535	41,482,644	12,922,977	36,012,817	13,019,606	42,072,382
Non-Residential	Small Business Energy Saver	1,026,607	3,221,137	13,968,790	47,989,975	15,360,852	55,685,830	17,350,972	63,169,894	15,977,993	46,832,942	11,418,264	25,661,729
Non-Residential	Smart Energy in Offices	1,156,497	934,385	1,463,240	1,666,306	1,061,729	1,843,559	891,010	1,067,480	219,748	143,285	-	-
Non-Residential	Disallowed Costs from 2015 Program Costs Audit (Order E-7 Sub 1105, da	-	-	(3,851)	-	-	-	-	-	-	-	-	-
		\$ 89,733,313	\$ 324,024,404	\$ 110,378,109	\$ 354,819,144	\$ 151,574,107	\$ 466,592,598	\$ 192,488,915	\$ 623,167,221	\$ 159,005,671	\$ 516,303,632	\$ 150,420,388	\$ 437,661,769

Costs as Filed in	Docket Number
2014	E-7, Sub 1164
2015	E-7, Sub 1192
2016	E-7, Sub 1192
2017	E-7, Sub 1230
2018	E-7, Sub 1230
2019	E-7, Sub 1230