

Duke Energy Carolinas, LLC  
Vintage 2017 Actual for January 1, 2017 to December 31, 2017  
Docket Number E-7, Sub 1249  
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
<b>Residential Programs</b>								
<b>EE Programs</b>								
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
<b>NC Residential Peak Demand Allocation Factor (Miller Exhibit 5 pg. 1)</b>								
								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
<b>Non-Residential Programs</b>								
<b>EE Programs</b>								
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
<b>NC Non-Residential Peak Demand Allocation Factor (Miller Exhibit 5 pg. 1)</b>								
								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
<b>Total DSM Program Breakdown</b>								
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 1249  
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H		
				=(A-B)*C	=(B*D)					
Residential Programs	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
<b>EE Programs</b>										
1 Energy Efficiency Education	967	5,530,707	\$ 2,863,153	\$ 1,992,260	11.5%	\$ 100,153	\$ 2,092,413	72.7130507%		E1 * F1 \$ 1,521,457
2 Energy Efficient Appliances and Devices	32,802	195,213,017	\$ 135,840,645	\$ 42,687,244	11.5%	\$ 10,712,641	\$ 53,399,885	72.7130507%		E2 * F2 \$ 38,828,685
3 HVAC Energy Efficiency	1,640	6,367,174	\$ 7,087,718	\$ 6,955,146	11.5%	\$ 15,246	\$ 6,970,392	72.7130507%		E3 * F3 \$ 5,068,385
4 Low Income Energy Efficiency and Weatherization Assistance	888	6,845,653	\$ 4,253,631	\$ 6,490,735	0.0%	\$ -	\$ 6,490,735	72.7130507%		E4 * F4 \$ 4,719,611
5 Multi-Family Energy Efficiency	2,336	20,923,363	\$ 13,613,278	\$ 3,604,921	11.5%	\$ 1,150,961	\$ 4,755,882	72.7130507%		E5 * F5 \$ 3,458,147
6 Residential Energy Assessments	929	7,716,668	\$ 5,756,145	\$ 2,836,229	11.5%	\$ 335,790	\$ 3,172,019	72.7130507%		E6 * F6 \$ 2,306,472
7 Total for Residential Conservation Programs	39,561	242,596,582	\$ 169,414,571	\$ 64,566,534		\$ 12,314,791	\$ 76,881,325			\$ 55,902,757
8 My Home Energy Report <sup>1</sup>	95,887	344,759,844	\$ 22,682,074	\$ 12,765,286	11.5%	\$ 1,140,431	\$ 13,905,717	72.7130507%		E8 * F8 \$ 10,111,271
9 Total Residential Conservation and Behavioral Programs	135,449	587,356,426	\$ 192,096,645	\$ 77,331,820		\$ 13,455,222	\$ 90,787,042			\$ 66,014,028
10 Power Manager*	533,506	-	\$ 61,920,744	\$ 14,423,610	11.5%	\$ 5,462,170	\$ 19,885,780	73.6287551%	43.675154%	(E10+E26) *F10 *G10 \$ 12,360,166
11 Total Residential	668,955	587,356,426	\$ 254,017,389	\$ 91,755,430		\$ 18,917,392	\$ 110,672,822			\$ 78,374,194
<b>Non-Residential Programs</b>										
<b>EE Programs</b>										
12 Non Residential Smart Saver Custom Technical Assessments	13	83,588	\$ 67,297	\$ 407,293	11.5%	\$ (39,100)	\$ 368,194	72.7130507%		E12 * F12 \$ 267,725
13 Non Residential Smart Saver Custom	4,054	30,333,040	\$ 23,319,056	\$ 6,068,902	11.5%	\$ 1,983,768	\$ 8,052,669	72.7130507%		E13 * F13 \$ 5,855,342
14 Non Residential Smart Saver Energy Efficient Food Service Products	59	741,466	\$ 431,621	\$ 235,605	11.5%	\$ 22,542	\$ 258,147	72.7130507%		E14 * F14 \$ 187,706
15 Non Residential Smart Saver Energy Efficient HVAC Products	893	2,908,386	\$ 2,809,849	\$ 1,620,748	11.5%	\$ 136,747	\$ 1,757,495	72.7130507%		E16 * F16 \$ 1,277,928
16 Non Residential Smart Saver Energy Efficient Lighting Products	31,556	178,171,791	\$ 146,516,321	\$ 25,872,380	11.5%	\$ 13,874,053	\$ 39,746,433	72.7130507%		E17 * F17 \$ 28,900,844
17 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	421	2,669,016	\$ 1,617,544	\$ 377,785	11.5%	\$ 154,072	\$ 431,857	72.7130507%		E18 * F18 \$ 314,017
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 Smart Saver Energy Efficient Process Equipment Products	75	331,222	\$ 226,697	\$ 67,509	11.5%	\$ 18,307	\$ 85,816	72.7130507%		E20 * F20 \$ 62,399
20 Smart Saver(R) Non Residential Performance Incentive Program	168	3,271,186	\$ 1,671,568	\$ 479,610	11.5%	\$ 137,075	\$ 616,685	72.7130507%		E21 * F21 \$ 448,411
21 Small Business Energy Saver	13,374	76,696,523	\$ 46,827,028	\$ 15,977,993	11.5%	\$ 3,547,639	\$ 19,525,632	72.7130507%		E22 * F22 \$ 14,197,683
22 Smart Energy in Offices	310	1,488,592	\$ 143,266	\$ 219,748	11.5%	\$ (8,795)	\$ 210,952	72.7130507%		E23 * F23 \$ 153,390
23 Total for Non-Residential Conservation Programs	50,922	296,712,448	\$ 223,633,273	\$ 51,264,448		\$ 19,822,415	\$ 71,086,863			\$ 51,689,427
24 EnergyWise for Business	7,999	2,599,904	\$ 2,279,619	\$ 3,062,816	11.5%	\$ (90,068)	\$ 2,972,749	73.6287551%		\$ 2,177,928
25 PowerShare*	332,631	-	\$ 36,008,770	\$ 12,922,977	11.5%	\$ 2,654,866	\$ 15,577,843	73.6287551%		\$ 11,311,934
26 Total for Non-Residential DSM Programs	340,629	2,599,904	\$ 38,288,389	\$ 15,985,794		\$ 2,564,798	\$ 18,550,592	73.6287551%	56.324846%	(E10+E26) *F26 *G26 \$ 15,940,057
27 Total Non Residential	391,552	299,312,352	\$ 261,921,662	\$ 67,250,242		\$ 22,387,213	\$ 89,637,455			\$ 67,629,484
28 Total All Programs	1,060,507	886,668,778	\$ 515,939,051	\$ 159,005,671		\$ 41,304,606	\$ 200,310,277			\$ 146,003,677

(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

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Duke Energy Carolinas  
Evans Exhibit 1  
Vintage 2019 True Up - January 1, 2019 to December 31, 2019  
Docket Number E-7, Sub 1249  
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
<b>Residential Programs</b>										
<b>EE Programs</b>										
1 Energy Efficiency Education	841	6,713,787	\$ 2,519,645	\$ 1,644,077	11.5%	\$ 100,690	\$ 1,744,767	73.0903918%		E1 * F1 \$ 1,275,257
2 Energy Efficient Appliances and Devices	30,689	187,883,075	\$ 101,640,687	\$ 40,433,533	11.5%	\$ 7,038,823	\$ 47,472,355	73.0903918%		E2 * F2 \$ 34,697,731
3 HVAC Energy Efficiency	2,029	7,329,114	\$ 7,079,940	\$ 7,402,907	11.5%	\$ (37,141)	\$ 7,365,766	73.0903918%		E3 * F3 \$ 5,383,667
4 Low Income Energy Efficiency and Weatherization Assistance	1,074	8,782,273	\$ 3,570,760	\$ 7,344,325	0.0%	\$ -	\$ 7,344,325	73.0903918%		E4 * F4 \$ 5,367,996
5 Multi-Family Energy Efficiency	2,610	21,339,210	\$ 10,815,659	\$ 3,681,262	11.5%	\$ 820,456	\$ 4,501,718	73.0903918%		E5 * F5 \$ 3,290,323
6 Residential Energy Assessments	946	7,886,916	\$ 4,413,585	\$ 3,153,757	11.5%	\$ 144,880	\$ 3,298,637	73.0903918%		E6 * F6 \$ 2,410,987
7 Total for Residential Conservation Programs	38,190	239,934,375	\$ 130,040,275	\$ 63,659,861		\$ 8,067,708	\$ 71,727,569			\$ 52,425,961
8 My Home Energy Report	91,387	328,439,103	\$ 23,361,954	\$ 10,558,344	11.5%	\$ 1,472,415	\$ 12,030,759	73.0903918%		E8 * F8 \$ 8,793,329
9 Total Residential Conservation and Behavioral Programs	129,577	568,373,477	\$ 153,402,230	\$ 74,218,205		\$ 9,540,123	\$ 83,758,328			\$ 61,219,290
								<b>NC Residential Peak Demand Allocation Factor</b>		
10 Power Manager*	568,235	-	\$ 69,783,157	\$ 13,386,942	11.5%	\$ 6,485,565	\$ 19,872,507	74.2414264%	45.955615%	(E10+E26) *F10 *G10 \$ 13,583,508
11 Total Residential	497,812	568,373,477	\$ 223,185,387	\$ 87,605,147		\$ 16,025,688	\$ 103,630,835			\$ 74,802,798
	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 Non-Residential Revenue Requirement
<b>Non-Residential Programs</b>										
<b>EE Programs</b>										
12 Non Residential Energy Efficient ITEE	-	11,262	\$ 1,385	\$ 44,335	11.5%	\$ (4,939)	\$ 39,395	73.0903918%		E12 * F12 \$ 28,794
13 Non Residential Smart Saver Custom	10,109	52,522,612	\$ 35,884,367	\$ 8,873,872	11.5%	\$ 3,106,207	\$ 11,980,079	73.0903918%		E13 * F13 \$ 8,756,287
14 Non Residential Smart Saver Custom Technical Assessments	148	1,930,762	\$ 691,285	\$ 296,006	11.5%	\$ 45,457	\$ 341,463	73.0903918%		E14 * F14 \$ 249,577
15 Non Residential Smart Saver Energy Efficient Food Service Products	78	997,611	\$ 412,886	\$ 339,996	11.5%	\$ 8,382	\$ 348,378	73.0903918%		E16 * F16 \$ 254,631
16 Non Residential Smart Saver Energy Efficient HVAC Products	1,696	7,533,194	\$ 5,516,665	\$ 2,208,364	11.5%	\$ 380,455	\$ 2,588,818	73.0903918%		E17 * F17 \$ 1,892,178
17 Non Residential Smart Saver Energy Efficient Lighting Products	29,566	163,560,290	\$ 105,608,459	\$ 20,834,766	11.5%	\$ 9,748,975	\$ 30,583,741	73.0903918%		E18 * F18 \$ 22,353,776
18 Non Residential Smart Saver Energy Efficient Process Equipment Products	111	732,043	\$ 416,343	\$ 119,843	11.5%	\$ 34,097	\$ 153,941	73.0903918%		E19 * F19 \$ 112,516
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	232	1,460,589	\$ 720,816	\$ 189,172	11.5%	\$ 61,139	\$ 250,311	73.0903918%		E20 * F20 \$ 182,953
20 Smart Saver(R) Non Residential Performance Incentive Program	391	4,545,995	\$ 2,238,186	\$ 785,165	11.5%	\$ 167,097	\$ 952,262	73.0903918%		E21 * F21 \$ 696,012
21 Small Business Energy Saver	9,196	53,674,194	\$ 25,661,729	\$ 11,421,399	11.5%	\$ 1,637,638	\$ 13,059,037	73.0903918%		E22 * F22 \$ 9,544,901
22 Smart Energy in Offices	-	-	\$ -	\$ -	11.5%	\$ -	\$ -	73.0903918%		E23 * F23 \$ -
23 Total for Non-Residential Conservation Programs	51,527	286,968,552	\$ 177,152,121	\$ 45,112,917		\$ 15,184,508	\$ 60,297,426			\$ 44,071,625
								<b>NC Non-Residential Peak Demand Allocation Factor</b>		
24 EnergyWise for Business	11,598	2,704,118	\$ 2,728,428	\$ 3,687,462	11.5%	\$ (110,289)	\$ 3,577,173	74.2414264%		\$ 2,646,002
25 PowerShare*	342,590	-	\$ 42,072,382	\$ 13,022,816	11.5%	\$ 3,340,700	\$ 16,363,516	74.2414264%		\$ 12,017,516
26 Total for Non-Residential DSM Programs	354,188	2,704,118	\$ 44,800,810	\$ 16,710,278		\$ 3,230,411	\$ 19,940,689	74.2414264%	54.044385%	(E10+E26) *F26 *G26 \$ 15,974,377
27 Total Non Residential	405,715	289,672,670	\$ 221,952,931	\$ 61,823,195		\$ 18,414,920	\$ 80,238,115			\$ 60,046,002
28 Total All Programs	1,103,528	858,046,147	\$ 445,138,318	\$ 149,428,343		\$ 34,440,607	\$ 183,868,950			\$ 134,848,800

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

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	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
<b>Residential Programs</b>										
<b>EE Programs</b>										
1 Energy Efficiency Education	424	3,380,325	\$ 1,312,408	\$ 1,113,485	11.5%	\$ 22,876	\$ 1,136,361	73.2212736%		E1 * F1 \$ 832,058
2 Energy Efficient Appliances and Devices	15,786	111,202,880	\$ 60,871,143	\$ 22,124,101	11.5%	\$ 4,455,910	\$ 26,580,011	73.2212736%		E2 * F2 \$ 19,462,222
3 HVAC Energy Efficiency	2,190	7,689,428	\$ 7,811,427	\$ 7,563,287	11.5%	\$ 28,536	\$ 7,591,823	73.2212736%		E3 * F3 \$ 5,558,829
4 Low Income Energy Efficiency and Weatherization Assistance	244	2,166,300	\$ 1,094,864	\$ 2,787,490	0.0%	\$ -	\$ 2,787,490	73.2212736%		E4 * F4 \$ 2,041,036
5 Multi-Family Energy Efficiency	522	4,042,084	\$ 2,156,883	\$ 1,613,839	11.5%	\$ 62,450	\$ 1,676,289	73.2212736%		E5 * F5 \$ 1,227,400
6 Residential Energy Assessments	944	7,891,628	\$ 4,582,748	\$ 3,358,880	11.5%	\$ 140,745	\$ 3,499,625	73.2212736%		E6 * F6 \$ 2,562,470
7 Total for Residential Conservation Programs	20,109	136,372,643	\$ 77,829,474	\$ 38,561,083		\$ 4,710,517	\$ 43,271,600			\$ 31,684,015
8 My Home Energy Report	92,401	332,105,411	\$ 23,927,899	\$ 12,749,651	11.5%	\$ 1,285,498	\$ 14,035,150	73.2212736%		E8 * F8 \$ 10,276,715
9 Total Residential Conservation and Behavioral Programs	112,511	468,478,054	\$ 101,757,372	\$ 51,310,734		\$ 5,996,015	\$ 57,306,749			\$ 41,960,730
<b>NC Residential Peak Demand Allocation Factor</b>										
10 Power Manager*	593,227	-	\$ 74,785,083	\$ 14,303,277	11.5%	\$ 6,955,408	\$ 21,258,684	74.1953449%	45.442653%	(E10+E26) *F10 *G10 \$ 13,085,252
11 Total Residential	705,737	468,478,054	\$ 176,542,455	\$ 65,614,011		\$ 12,951,423	\$ 78,565,434			\$ 55,045,982
<b>Non-Residential Programs</b>										
<b>EE Programs</b>										
12 Non Residential Energy Efficient ITEE	-	9,917	\$ 1,734	\$ 15,179	11.5%	\$ (1,546)	\$ 13,632	73.2212736%		E12 * F12 \$ 9,982
13 Non Residential Smart Saver Custom	4,785	21,156,703	\$ 15,898,503	\$ 5,771,790	11.5%	\$ 1,164,572	\$ 6,936,362	73.2212736%		E13 * F13 \$ 5,078,893
14 Non Residential Smart Saver Custom Technical Assessments	76	1,413,836	\$ 518,862	\$ 330,829	11.5%	\$ 21,647	\$ 352,175	73.2212736%		E14 * F14 \$ 257,941
15 Non Residential Smart Saver Energy Efficient Food Service Products	35	502,870	\$ 230,241	\$ 533,411	11.5%	\$ (34,865)	\$ 498,546	73.2212736%		E16 * F16 \$ 365,042
16 Non Residential Smart Saver Energy Efficient HVAC Products	1,682	9,270,812	\$ 7,423,034	\$ 2,450,713	11.5%	\$ 571,817	\$ 3,022,530	73.2212736%		E17 * F17 \$ 2,213,135
17 Non Residential Smart Saver Energy Efficient Lighting Products	18,364	109,554,291	\$ 71,994,024	\$ 13,098,851	11.5%	\$ 6,772,945	\$ 19,871,796	73.2212736%		E18 * F18 \$ 14,550,382
18 Non Residential Smart Saver Energy Efficient Process Equipment Products	206	567,122	\$ 236,299	\$ 29,681	11.5%	\$ 23,761	\$ 53,442	73.2212736%		E19 * F19 \$ 39,131
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	225	1,402,429	\$ 757,993	\$ 167,464	11.5%	\$ 67,911	\$ 235,375	73.2212736%		E20 * F20 \$ 172,345
20 Smart Saver(R) Non Residential Performance Incentive Program	223	5,961,326	\$ 2,035,780	\$ 751,724	11.5%	\$ 147,666	\$ 899,391	73.2212736%		E21 * F21 \$ 658,545
21 Small Business Energy Saver	5,560	30,611,745	\$ 15,315,818	\$ 6,933,130	11.5%	\$ 964,009	\$ 7,897,139	73.2212736%		E22 * F22 \$ 5,782,386
22 Smart Energy in Offices	-	-	\$ -	\$ -	11.5%	\$ -	\$ -	73.2212736%		E23 * F23 \$ -
23 Total for Non-Residential Conservation Programs	31,156	180,451,052	\$ 114,412,286	\$ 30,082,573		\$ 9,697,917	\$ 39,780,450			\$ 29,127,782
<b>NC Non-Residential Peak Demand Allocation Factor</b>										
24 EnergyWise for Business	11,791	1,297,238	\$ 2,131,933	\$ 2,941,282	11.5%	\$ (93,075)	\$ 2,848,207	74.1953449%		\$ 15,709,836
25 PowerShare*	276,583	-	\$ 34,867,428	\$ 12,082,697	11.5%	\$ 2,620,244	\$ 14,702,941	74.1953449%	54.557347%	(E10+E26) *F26 *G26 \$ 15,709,836
26 Total for Non-Residential DSM Programs	288,374	1,297,238	\$ 36,999,361	\$ 15,023,979		\$ 2,527,169	\$ 17,551,148	74.1953449%		\$ 15,709,836
27 Total Non Residential	319,530	181,748,291	\$ 151,411,647	\$ 45,106,551		\$ 12,225,086	\$ 57,331,637			\$ 44,837,618
28 Total All Programs	1,025,268	650,226,345	\$ 327,954,102	\$ 110,720,562		\$ 25,176,509	\$ 135,897,071			\$ 99,883,601

(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 2022 Estimate - January 1, 2022 to December 31, 2022  
Docket Number E-7, Sub 1249  
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 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	
<b>Residential Programs</b>												
<b>EE Programs</b>												
1 Energy Efficiency Education	1,037	1,464	8,276,026	\$ 3,145,767	\$ 2,418,940	10.6%	\$ 77,044	\$ 2,495,984	73.2212736%		E1 * F1	\$ 1,827,591
2 Energy Efficient Appliances and Devices	7,685	6,005	78,229,772	\$ 34,272,497	\$ 16,096,321	10.6%	\$ 1,926,675	\$ 18,022,996	73.2212736%		E2 * F2	\$ 13,196,667
3 HVAC Energy Efficiency	1,461	1,735	5,457,654	\$ 5,299,434	\$ 5,570,039	10.6%	\$ (28,684)	\$ 5,541,355	73.2212736%		E3 * F3	\$ 4,057,451
4 Low Income Energy Efficiency and Weatherization Assistance	1,954	2,111	9,754,693	\$ 6,175,591	\$ 8,762,135	10.6%	\$ 654,613	\$ 9,416,748	73.2212736%		E4 * F4	\$ 6,895,063
5 Multi-Family Energy Efficiency	2,392	3,242	18,499,000	\$ 9,487,870	\$ 3,248,419	10.6%	\$ 661,382	\$ 3,909,801	73.2212736%		E5 * F5	\$ 2,862,806
6 Residential Energy Assessments	1,605	1,176	14,772,690	\$ 7,619,294	\$ 5,602,448	10.6%	\$ 213,786	\$ 5,816,234	73.2212736%		E6 * F6	\$ 4,258,720
7 Total for Residential Conservation Programs	16,134	15,733	134,989,835	\$ 66,000,453	\$ 41,698,303		\$ 3,504,814	\$ 45,203,117				\$ 33,098,298
8 My Home Energy Report	92,478	80,682	333,200,740	\$ 21,443,834	\$ 12,151,901	10.6%	\$ 984,945	\$ 13,136,845	73.2212736%		E8 * F8	\$ 9,618,966
9 Total Residential Conservation and Behavioral Programs	108,612	96,416	468,190,575	\$ 87,444,286	\$ 53,850,203		\$ 4,489,759	\$ 58,339,962				\$ 42,717,264
									<b>NC Residential Peak Demand Allocation Factor</b>			
10 Power Manager*	599,074	14,521	-	\$ 76,782,152	\$ 19,286,677	10.6%	\$ 6,094,520	\$ 25,381,197	74.1953449%	45.442653%	(E10+E26) *F10 *G10	\$ 15,541,981
11 Total Residential	707,687	110,937	468,190,575	\$ 164,226,439	\$ 73,136,880		\$ 10,584,280	\$ 83,721,160				\$ 58,259,245
									<b>NC Non-Residential Peak Demand Allocation Factor</b>			
<b>Non-Residential Programs</b>												
<b>EE Programs</b>												
12 Non Residential Energy Efficient ITEE	-	-	95,047	\$ 17,576	\$ 28,075	10.6%	\$ (1,113)	\$ 26,962	73.2212736%		E12 * F12	\$ 19,742
13 Non Residential Smart Saver Custom	6,621	6,621	46,402,377	\$ 25,673,184	\$ 9,652,719	10.6%	\$ 1,698,169	\$ 11,350,888	73.2212736%		E13 * F13	\$ 8,311,265
14 Non Residential Smart Saver Custom Technical Assessments	611	611	5,350,493	\$ 2,749,737	\$ 1,491,649	10.6%	\$ 133,357	\$ 1,625,006	73.2212736%		E14 * F14	\$ 1,189,850
15 Non Residential Smart Saver Energy Efficient Food Service Products	135	128	1,588,593	\$ 661,380	\$ 294,970	10.6%	\$ 38,839	\$ 333,810	73.2212736%		E16 * F16	\$ 244,420
16 Non Residential Smart Saver Energy Efficient HVAC Products	2,920	2,211	15,862,098	\$ 9,554,016	\$ 3,423,623	10.6%	\$ 649,822	\$ 4,073,444	73.2212736%		E17 * F17	\$ 2,982,628
17 Non Residential Smart Saver Energy Efficient Lighting Products	30,254	29,909	168,159,774	\$ 104,317,008	\$ 29,893,490	10.6%	\$ 7,888,893	\$ 37,782,383	73.2212736%		E18 * F18	\$ 27,664,742
18 Non Residential Smart Saver Energy Efficient Process Equipment Products	174	161	1,089,905	\$ 556,380	\$ 255,128	10.6%	\$ 31,933	\$ 287,061	73.2212736%		E19 * F19	\$ 210,190
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	371	379	2,468,639	\$ 1,118,710	\$ 402,620	10.6%	\$ 75,906	\$ 478,526	73.2212736%		E20 * F20	\$ 350,383
20 Smart Saver(R) Non Residential Performance Incentive Program	805	805	7,050,429	\$ 3,388,427	\$ 2,120,079	10.6%	\$ 124,127	\$ 2,254,206	73.2212736%		E21 * F21	\$ 1,650,558
21 Small Business Energy Saver	20,736	12,711	98,041,785	\$ 55,375,251	\$ 19,735,769	10.6%	\$ 3,777,785	\$ 23,513,554	73.2212736%		E22 * F22	\$ 17,216,923
22 Smart Energy in Offices	-	-	-	\$ -	\$ -	10.6%	\$ -	\$ -	73.2212736%		E23 * F23	\$ -
23 Total for Non-Residential Conservation Programs	62,628	53,536	346,109,141	\$ 203,408,669	\$ 67,298,122		\$ 14,427,718	\$ 81,725,840				\$ 59,840,701
									<b>NC Non-Residential Peak Demand Allocation Factor</b>			
24 EnergyWise for Business	17,103	2,496	-	\$ 2,190,679	\$ 5,138,085	10.6%	\$ (312,425)	\$ 4,825,660	74.1953449%			
25 PowerShare*	320,236	297,820	-	\$ 41,017,747	\$ 12,910,020	10.6%	\$ 2,979,419	\$ 15,889,439	74.1953449%			
26 Total for Non-Residential DSM Programs	337,339	300,316	-	\$ 43,208,427	\$ 18,048,105		\$ 2,666,994	\$ 20,715,099	74.1953449%	54.557347%	(E10+E26) *F26 *G26	\$ 18,659,325
27 Total Non Residential	399,967	353,852	346,109,141	\$ 246,617,096	\$ 85,346,227		\$ 17,094,712	\$ 102,440,939				\$ 78,500,026
28 Total All Programs	1,107,654	464,789	814,299,715	\$ 410,843,534	\$ 158,483,107		\$ 27,678,992	\$ 186,162,098				\$ 136,759,271

(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

total Costs \$ 158,483,107  
Low Income \$ (8,762,135)  
total PPI \$ 27,678,992  
Low Income \$ (654,613)  
\$ 149,720,972 \$ 27,024,379

PPI to Cost Ratio 18.05%



Duke Energy Carolinas, LLC  
 For the Period January 1, 2017 - December 31, 2022  
 Docket Number E-7, Sub 1249  
 North Carolina Net Lost Revenue Estimates for Vintages 2017 - 2022

Line	Vintage 2017							
	Residential	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
1	Energy Efficiency Education	\$ 165,283	\$ 221,302	\$ 143,361	\$ 52,807			\$ 582,752
2	Energy Efficient Appliances and Devices	3,386,885	5,134,527	3,329,320	1,440,355			13,291,087
3	HVAC Energy Efficiency	197,134	264,822	171,557	65,066			698,579
4	Low Income Energy Efficiency and Weatherization Assistance	141,450	210,611	136,513	58,299			546,874
5	Multi-Family Energy Efficiency	535,154	743,596	478,797	187,747			1,945,294
6	My Home Energy Report	14,455,527	-	-	-			14,455,527
7	Residential Energy Assessments	198,264	274,950	178,147	70,079			721,440
8	Appliance Recycle Program	-	-	-	-			-
9	Total Lost Revenues	19,079,697	6,849,808	4,437,695	1,874,353			32,241,553
10	Found Residential Revenues *	-	-	-	-			-
11	Net Lost Residential Revenues	\$ 19,079,697	\$ 6,849,808	\$ 4,437,695	\$ 1,874,353			\$ 32,241,553
	Non-Residential	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
12	EnergyWise for Business	\$ 85,268	\$ 158,514	\$ 158,611	\$ 69,373			\$ 471,766
13	Non Residential Energy Efficient ITEE	82	162	162	67			474
14	Non Residential Smart Saver Custom	435,407	871,334	901,523	390,825			2,599,089
15	Non Residential Smart Saver Custom Technical Assessments	220,191	358,289	366,388	142,716			1,087,584
16	Non Residential Smart Saver Energy Efficient Food Service Products	28,410	40,771	41,426	12,291			122,898
17	Non Residential Smart Saver Energy Efficient HVAC Products	61,639	110,255	110,069	45,304			327,267
18	Non Residential Smart Saver Energy Efficient Lighting Products	6,200,869	10,299,304	10,364,600	3,837,608			30,702,381
19	Non Residential Smart Saver Energy Efficient Process Equipment Products	8,160	12,172	12,409	4,010			36,751
20	Non Residential Smart Saver Energy Efficient Pumps and Drives Products	58,808	127,509	132,526	65,480			384,323
21	Small Business Energy Saver	2,203,337	3,774,927	3,784,317	1,463,465			11,226,047
22	Smart Saver(R) Non Residential Performance Incentive Program	66	774	759	487			2,086
23	Smart Energy in Offices	209,310	149,382	-	-			358,692
24	Business Energy Report	-	-	-	-			-
25	Energy Management Information Services	-	-	-	-			-
26	Total Lost Revenues	9,511,547	15,903,393	15,872,791	6,031,628			47,319,359
27	Found Non-Residential Revenues *	-	-	-	-			-
28	Net Lost Non-Residential Revenues	\$ 9,511,547	\$ 15,903,393	\$ 15,872,791	\$ 6,031,628			\$ 47,319,359

\* 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 <sup>(a)</sup>	2018	2019	2020	2021	2022	
29	Appliance Recycle Program		\$ -	\$ -	\$ -	\$ -	\$ -	-
30	Energy Efficiency Education		128,311	265,267	172,311	-	-	565,889
31	Energy Efficient Appliances and Devices		4,299,434	9,243,154	6,003,270	-	-	19,545,858
32	HVAC Energy Efficiency		161,443	324,295	210,669	-	-	696,407
33	Low Income Energy Efficiency and Weatherization Assistance		154,376	340,042	220,844	-	-	715,262
34	Multi-Family Energy Efficiency		493,320	1,087,466	707,931	-	-	2,288,716
35	My Home Energy Report		15,751,701	-	-	-	-	15,751,701
36	Residential Energy Assessments		204,097	359,848	233,732	-	-	797,677
37	Total Lost Revenues		21,192,681	11,620,072	7,548,757	-	-	40,361,510
38	Found Residential Revenues *		-	-	-	-	-	-
39	Net Lost Residential Revenues		\$ -	\$ 21,192,681	\$ 11,620,072	\$ 7,548,757	\$ -	\$ 40,361,510

Line	Non-Residential							Total
	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022		
40	EnergyWise for Business		\$ 66,282	\$ 120,440	\$ 78,851	\$ -	\$ -	265,573
41	Non Residential Energy Efficient ITEE		185	876	573	-	-	1,634
42	Non Residential Smart Saver Custom		462,774	773,838	502,673	-	-	1,739,285
43	Non Residential Smart Saver Custom Technical Assessments		212	866	564	-	-	1,642
44	Non Residential Smart Saver Energy Efficient Food Service Products		14,117	22,610	14,639	-	-	51,366
45	Non Residential Smart Saver Energy Efficient HVAC Products		50,245	116,425	75,664	-	-	242,334
46	Non Residential Smart Saver Energy Efficient Lighting Products		4,102,094	6,717,476	4,371,113	-	-	15,190,682
47	Non Residential Smart Saver Energy Efficient Process Equipment Products		6,501	10,497	6,820	-	-	23,818
48	Non Residential Smart Saver Energy Efficient Pumps and Drives Products		66,649	87,658	56,898	-	-	211,206
49	Small Business Energy Saver		1,776,069	3,461,673	2,256,564	-	-	7,494,306
50	Smart Saver(R) Non Residential Performance Incentive Program		20,243	84,754	54,723	-	-	159,720
51	Smart Energy in Offices		39,733	3,847	-	-	-	43,580
52	Business Energy Report		-	-	-	-	-	-
53	Energy Management Information Services		-	-	-	-	-	-
54	Total Lost Revenues		6,605,105	11,400,960	7,419,081	-	-	25,425,146
55	Found Non-Residential Revenues *		-	-	-	-	-	-
56	Net Lost Non-Residential Revenues		\$ -	\$ 6,605,105	\$ 11,400,960	\$ 7,419,081	\$ -	\$ 25,425,146

\* 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							Total
	Residential	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	
57	Appliance Recycle Program		\$ -	\$ -	\$ -	\$ -	\$ -	-
58	Energy Efficiency Education		148,216	254,076	98,474	84,460	585,226	
59	Energy Efficient Appliances and Devices		4,889,171	6,760,719	2,465,584	1,702,244	15,817,717	
60	HVAC Energy Efficiency		192,394	295,956	126,308	86,980	701,638	
61	Low Income Energy Efficiency and Weatherization Assistance		220,072	307,608	116,204	83,090	726,975	
62	Multi-Family Energy Efficiency		600,390	795,669	282,312	205,687	1,884,060	
63	My Home Energy Report		16,556,381	-	-	-	16,556,381	
64	Residential Energy Assessments		195,756	270,285	99,434	70,607	636,082	
65	Total Lost Revenues		22,802,381	8,684,315	3,188,316	2,233,068	36,908,079	
66	Found Residential Revenues *		-	-	-	-	-	
67	Net Lost Residential Revenues		\$ -	\$ 22,802,381	\$ 8,684,315	\$ 3,188,316	\$ 2,233,068	\$ 36,908,079

Line	Non-Residential							Total
	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022		
68	EnergyWise for Business		\$ 62,551	\$ 96,596	\$ 37,378	\$ 25,541	\$ 222,066	
69	Non Residential Energy Efficient ITEE		334	437	124	99	995	
70	Non Residential Smart Saver Custom		872,885	1,447,229	602,596	418,811	3,341,520	
71	Non Residential Smart Saver Custom Technical Assessments		83,809	57,511	1,648	1,585	144,552	
72	Non Residential Smart Saver Energy Efficient Food Service Products		13,606	19,081	7,022	4,769	44,479	
73	Non Residential Smart Saver Energy Efficient HVAC Products		177,008	318,129	137,768	100,163	733,069	
74	Non Residential Smart Saver Energy Efficient Lighting Products		3,673,309	4,749,627	1,562,468	1,053,152	11,038,556	
75	Non Residential Smart Saver Energy Efficient Process Equipment Products		20,702	19,297	2,885	1,854	44,737	
76	Non Residential Smart Saver Energy Efficient Pumps and Drives Products		28,698	42,951	17,744	12,165	101,559	
77	Small Business Energy Saver		1,333,593	1,726,742	549,533	385,372	3,995,241	
78	Smart Saver(R) Non Residential Performance Incentive Program		24,374	105,870	79,717	70,677	280,638	
79	Smart Energy in Offices		-	-	-	-	-	
80	Business Energy Report		-	-	-	-	-	
81	Energy Management Information Services		-	-	-	-	-	
82	Total Lost Revenues		6,290,870	8,583,472	2,998,882	2,074,187	19,947,411	
83	Found Non-Residential Revenues *		-	-	-	-	-	
84	Net Lost Non-Residential Revenues		\$ -	\$ 6,290,870	\$ 8,583,472	\$ 2,998,882	\$ 2,074,187	\$ 19,947,411

\* 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 2020								
Line	Residential	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
85	Appliance Recycle Program				\$ -	\$ -	\$ -	-
86	Energy Efficiency Education				74,316	130,377	137,450	342,143
87	Energy Efficient Appliances and Devices				2,911,503	4,146,152	4,367,339	11,424,993
88	HVAC Energy Efficiency				192,575	348,449	367,209	908,234
89	Low Income Energy Efficiency and Weatherization Assistance				65,184	68,809	72,474	206,466
90	Multi-Family Energy Efficiency				159,124	110,737	117,242	387,102
91	My Home Energy Report				17,076,225	-	-	17,076,225
92	Residential Energy Assessments				158,789	308,596	325,104	792,490
93	Total Lost Revenues				20,637,715	5,113,120	5,386,818	31,137,653
94	Found Residential Revenues *				-	-	-	-
95	Net Lost Residential Revenues	\$ -	\$ -	\$ -	\$ 20,637,715	\$ 5,113,120	\$ 5,386,818	\$ 31,137,653
Non-Residential		2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
96	EnergyWise for Business				\$ 37,559	\$ 51,370	\$ 53,609	\$ 142,538
97	Non Residential Energy Efficient ITEE				169	369	385	924
98	Non Residential Smart Saver Custom				326,367	695,771	723,825	1,745,964
99	Non Residential Smart Saver Custom Technical Assessments				17,992	19,078	19,400	56,470
100	Non Residential Smart Saver Energy Efficient Food Service Products				8,787	15,426	15,847	40,059
101	Non Residential Smart Saver Energy Efficient HVAC Products				138,713	395,673	409,759	944,145
102	Non Residential Smart Saver Energy Efficient Lighting Products				2,394,610	3,921,875	4,072,809	10,389,294
103	Non Residential Smart Saver Energy Efficient Process Equipment Products				30,160	29,080	29,734	88,974
104	Non Residential Smart Saver Energy Efficient Pumps and Drives Products				37,208	41,416	43,745	122,369
105	Small Business Energy Saver				757,292	1,257,502	1,308,518	3,323,311
106	Smart Saver(R) Non Residential Performance Incentive Program				90,352	124,140	125,046	339,538
107	Smart Energy in Offices				-	-	-	-
108	Business Energy Report				-	-	-	-
109	Energy Management Information Services				-	-	-	-
110	Total Lost Revenues				3,839,208	6,551,702	6,802,676	17,193,586
111	Found Non-Residential Revenues *				-	-	-	-
112	Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ 3,839,208	\$ 6,551,702	\$ 6,802,676	\$ 17,193,586

\* 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 2021		2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
	Residential								
113	Residential Energy Assessments						390,315	760,606	\$ 1,150,921
114	My Home Energy Report						22,036,642	-	22,036,642
115	Energy Efficient Appliances and Devices						1,461,671	2,914,906	4,376,577
116	Residential – Smart Saver Energy Efficiency Program						141,218	275,156	416,373
117	Appliance Recycle Program						-	-	-
118	Income Qualified Energy Efficiency and Weatherization Assistance						211,920	436,083	648,002
119	Multi-Family Energy Efficiency						748,492	1,458,586	2,207,079
120	Energy Efficiency Education						215,041	404,329	619,369
121	Total Lost Revenues		-	-	-	-	25,205,298	6,249,665	31,454,964
122	Found Residential Revenues *		-	-	-	-	-	-	-
123	Net Lost Residential Revenues		\$ -	\$ -	\$ -	\$ -	\$ 25,205,298	\$ 6,249,665	\$ 31,454,964

Line	Non-Residential		2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
124	Nonresidential Smart Saver Custom Energy Assessments						\$ 93,807	\$ 221,517	\$ 315,324
125	Non Residential Smart Saver Custom						986,152	2,234,873	3,221,025
126	Energy Management Information Services						-	-	-
127	Non Residential Smart Saver Energy Efficient Food Service Products						107,100	239,174	346,274
128	Non Residential Smart Saver Energy Efficient HVAC Products						87,660	181,288	268,948
129	Non Residential Smart Saver Energy Efficient Lighting Products						3,741,050	7,573,677	11,314,728
130	Non Residential Smart Saver Energy Efficient Pumps and Drives Products						56,674	132,158	188,832
131	Non Residential Smart Saver Energy Efficient IT Products						5,557	13,123	18,681
132	Non Residential Smart Saver Energy Efficient Process Equipment Products						14,632	31,675	46,307
133	Non Residential Smart Saver Performance Incentive						265,513	626,984	892,497
134	Small Business Energy Saver						953,671	2,137,008	3,090,679
135	Smart Energy in Offices						-	-	-
136	Business Energy Report						-	-	-
137	EnergyWise for Business						48,898	103,187	152,085
138	Total Lost Revenues		-	-	-	-	6,360,715	13,494,665	19,855,379
139	Found Non-Residential Revenues *		-	-	-	-	-	-	-
140	Net Lost Non-Residential Revenues		\$ -	\$ -	\$ -	\$ -	\$ 6,360,715	\$ 13,494,665	\$ 19,855,379

\* 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 2022		2016	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
	Residential									
141	Energy Efficiency Education								212,630	\$ 212,630
142	Energy Efficient Appliances and Devices								2,106,950	\$ 2,106,950
143	HVAC Energy Efficiency								145,714	\$ 145,714
144	Low Income Energy Efficiency and Weatherization Assistance								240,306	\$ 240,306
145	Multi-Family Energy Efficiency								507,144	\$ 507,144
146	My Home Energy Report								17,381,990	\$ 17,381,990
147	Residential Energy Assessments								431,676	\$ 431,676
148	Total Lost Revenues		-	-	-	-	-	-	21,026,409	\$ 21,026,409
149	Found Residential Revenues *		-	-	-	-	-	-	-	\$ -
150	Net Lost Residential Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	21,026,409	\$ 21,026,409
	Non-Residential		2016	2017 <sup>(a)</sup>	2018	2019	2020	2021	2022	Total
151	Non Residential Energy Efficient ITEE								\$ 2,132	\$ 2,132
152	Non Residential Smart Saver Custom								939,502	\$ 939,502
153	Non Residential Smart Saver Custom Technical Assessments								101,037	\$ 101,037
154	Non Residential Smart Saver Energy Efficient Food Service Products								36,317	\$ 36,317
155	Non Residential Smart Saver Energy Efficient HVAC Products								506,985	\$ 506,985
156	Non Residential Smart Saver Energy Efficient Lighting Products								4,189,330	\$ 4,189,330
157	Non Residential Smart Saver Energy Efficient Process Equipment Products								24,914	\$ 24,914
158	Non Residential Smart Saver Energy Efficient Pumps and Drives Products								58,634	\$ 58,634
159	Small Business Energy Saver								2,183,673	\$ 2,183,673
160	Smart Saver(R) Non Residential Performance Incentive Program								138,704	\$ 138,704
161	Total Lost Revenues		-	-	-	-	-	-	8,181,228	\$ 8,181,228
162	Found Non-Residential Revenues *		-	-	-	-	-	-	-	\$ -
163	Net Lost Non-Residential Revenues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	8,181,228	\$ 8,181,228

\* 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, 2020 - December 31, 2020  
Docket Number E-7 Sub 1249  
Actual Program Costs for Vintage Years 2017, 2018, 2019, 2020

	Carolinan System - 12 months Ended 12/31/2017	Carolinan System - 12 months Ended 12/31/2018	Carolinan System - 12 months Ended 12/31/2019	Carolinan System - 12 months Ended 12/31/2020
1 Residential Energy Assessments	2,909,098	2,836,229	3,153,757	3,358,880
2 My Home Energy Report	13,812,250	12,765,286	10,558,344	12,749,651
3 Energy Efficient Appliances and Devices	30,340,728	42,687,244	40,433,533	22,124,101
4 Residential – Smart Saver Energy Efficiency Program	7,403,327	6,955,146	7,402,907	7,563,287
5 Appliance Recycle Program	5,307	-	-	-
Income Qualified Energy Efficiency and				
6 Weatherization Assistance	5,505,992	6,490,735	7,344,325	2,787,490
7 Multi family Energy Efficiency	3,168,422	3,604,921	3,681,262	1,613,839
8 Energy Efficiency Education	2,077,611	1,992,260	1,644,077	1,113,485
9 Nonresidential Smart Saver Custom Energy Assessme	2,139,875	407,293	296,006	330,629
10 Energy Management Information Systems	-	-	-	-
11 Non-Residential Smart Saver Custom	7,304,838	6,068,902	8,873,872	5,771,790
12 Non-Residential Smart Saver Performance Incentive	320,559	479,610	785,165	751,724
13 Non-Residential Energy Efficient Food Service Produc	306,488	235,605	339,996	533,411
14 Non-Residential Smart Saver Energy Efficient HVAC Pr	1,560,769	1,620,748	2,208,364	2,450,713
15 Non-Residential Smart Saver Energy Efficient Lighting	66,689,770	25,872,380	20,834,766	13,098,851
16 Nonresidential Energy Efficient Pumps and Drives Pro	528,937	277,785	189,172	167,464
17 Nonresidential Energy Efficient ITEE	61,215	36,875	44,335	15,179
18 Nonresidential Energy Efficient Process Equipment Pr	162,413	67,509	119,843	29,681
19 Smart Energy In Offices	891,010	219,748	-	-
20 Small Business Energy Saver	17,350,972	15,977,993	11,421,399	6,933,130
21 Business Energy Report	126,680	-	-	-
22 Power Manager	14,021,500	14,423,610	13,386,942	14,303,277
23 EnergyWise for Business	2,484,618	3,062,816	3,687,462	2,941,282
24 Power Share	13,316,535	12,922,977	13,022,816	12,082,697
25				
26 <b>Total Energy Efficiency &amp; Demand Side Prog</b>	<b>\$ 192,488,915</b>	<b>\$ 159,005,671</b>	<b>\$ 149,428,343</b>	<b>\$ 110,720,562</b>
27				
28 NC Allocation Factor for EE programs	72.8087506%	72.7130507%	73.0903918%	73.2212736%
29 NC Allocation Factor for DSM programs-Resic	33.8075104%	32.1574721%	34.1181040%	33.7163333%
NC Allocation Factor for DSM programs-Non-	40.0747013%	41.4712829%	40.1233224%	40.4790117%
	NC Allocated - 12 Months Ended 12/31/2017	NC Allocated - 12 Months Ended 12/31/2018	NC Allocated - 12 Months Ended 12/31/2019	NC Allocated - 12 Months Ended 12/31/2019
30 Residential Energy Assessments	\$ 2,118,078	\$ 2,065,023	\$ 2,305,093	\$ 2,455,019
31 My Home Energy Report	\$ 10,056,526	\$ 9,294,245	\$ 7,717,135	\$ 9,318,770
32 Energy Efficient Appliances and Devices	\$ 22,090,705	\$ 31,080,049	\$ 29,553,027	\$ 16,170,592
33 Residential – Smart Saver Energy Efficiency P	\$ 5,390,270	\$ 5,063,955	\$ 5,410,814	\$ 5,528,036
34 Appliance Recycle Program	\$ 3,864	-	-	-
35 Income Qualified Energy Efficiency and Weat	\$ 4,008,844	\$ 4,725,823	\$ 5,367,996	\$ 2,037,388
36 Multi family Energy Efficiency	\$ 2,306,888	\$ 2,624,698	\$ 2,690,649	\$ 1,179,561
37 Energy Efficiency Education	\$ 1,512,683	\$ 1,450,539	\$ 1,201,662	\$ 813,850
38 Nonresidential Smart Saver Custom Energy A	\$ 1,558,016	\$ 296,545	\$ 216,352	\$ 241,658
39 Energy Management Information Systems	\$ -	\$ -	\$ -	\$ -
40 Non-Residential Smart Saver Custom	\$ 5,318,561	\$ 4,418,691	\$ 6,485,948	\$ 4,218,624
41 Non-Residential Smart Saver Performance Inr	\$ -	\$ -	\$ 573,880	\$ 549,438
42 Non-Residential Energy Efficient Food Service	\$ 223,150	\$ 171,541	\$ 248,504	\$ 389,872
43 Non-Residential Smart Saver Energy Efficient	\$ 1,136,376	\$ 1,180,046	\$ 1,614,102	\$ 1,791,236
44 Non-Residential Smart Saver Energy Efficient	\$ 48,555,988	\$ 18,837,357	\$ 15,228,212	\$ 9,574,002
45 Nonresidential Energy Efficient Pumps and D	\$ 385,112	\$ 202,252	\$ 138,267	\$ 122,400
46 Nonresidential Energy Efficient ITEE	\$ 44,570	\$ 26,848	\$ 32,404	\$ 11,094
47 Nonresidential Energy Efficient Process Equip	\$ 118,251	\$ 49,153	\$ 87,594	\$ 21,694
48 Smart Energy In Offices	\$ 648,734	\$ 159,996	\$ -	\$ -
49 Small Business Energy Saver	\$ 12,633,026	\$ 11,633,377	\$ 8,347,945	\$ 5,067,452
50 Business Energy Report	\$ 92,234	\$ -	\$ -	\$ -
51 Power Manager	\$ 10,082,296	\$ 9,778,895	\$ 10,268,601	\$ 10,268,601
52 EnergyWise for Business	\$ 1,879,262	\$ 2,416,251	\$ 2,664,815	\$ 2,324,090
53 Power Share	\$ 10,072,077	\$ 10,194,918	\$ 9,411,189	\$ 9,547,293
54				
55 <b>Total Energy Efficiency &amp; Demand Side Prog</b>	<b>\$ 140,235,514</b>	<b>\$ 115,670,203</b>	<b>\$ 109,564,190</b>	<b>\$ 81,630,671</b>



**Duke Energy Carolinas, LLC**  
**January 2017 - December 2020 Actuals**  
**January 2021 - December 2022 Estimates**  
**Docket Number E-7, Sub 1249**  
**North Carolina Found Revenues**

	Actual/ Reported KWH				Estimated KWH		Total	Decision Tree Node
	2017	2018	2019	2020	2021	2022		
Economic Development	348,693,600	507,965,880	285,918,000	330,562,641	-	-	1,473,140,121	Box 5 - exclude
Plug-in Electric Charging Station Pilot	-	-	-	-	-	-	-	Box 3 - exclude
Lighting							-	
Residential	78,437	62,832	48,249	33,562	33,562	33,562	290,204	Box 6 - include
Non Residential (Regulated)	102,200	67,443	105,681	130,447	130,447	130,447	666,665	Box 6 - include
MV to LED Credit - Residential (Regulated)	(172,702)	(150,968)	(113,648)	(50,351)	(81,706)	(103,945)	(673,320)	Box 6 - include
MV to LED Credit - Non-Residential (Regulated)	(193,494)	(248,852)	(232,984)	(367,126)	(595,743)	(757,899)	(2,396,098)	Box 6 - include
Total KWH	<u>348,508,041</u>	<u>507,696,335</u>	<u>285,725,298</u>	<u>330,309,173</u>	<u>(513,440)</u>	<u>(697,835)</u>	<u>1,471,027,572</u>	
<b>Total KWH Included</b>	<u>(185,559)</u>	<u>(269,545)</u>	<u>(192,702)</u>	<u>(253,468)</u>	<u>(513,440)</u>	<u>(697,835)</u>	<u>(2,112,549)</u>	
<b>Total KWH Included (net of Free Riders 15%)</b>	<u>(157,725)</u>	<u>(229,113)</u>	<u>(163,797)</u>	<u>(215,448)</u>	<u>(436,424)</u>	<u>(593,160)</u>	<u>(1,795,666)</u>	
<b>Annualized Found Revenue - Non Residential</b>	\$ (47,791)	\$ (96,542)	\$ (69,401)	\$ (135,345)	\$ (291,123)	\$ (392,579)	\$ (1,032,781)	
<b>Annualized Found Revenue - Residential</b>	\$ (63,987)	\$ (59,309)	\$ (44,621)	\$ (12,066)	\$ (35,217)	\$ (51,485)	\$ (266,684)	
	2017	2018	2019	2020	2021	2022	Total	
Vintage 2014 - Non Res	(5,174)						(5,174)	
Vintage 2015 - Non Res	(37,868)	(13,108)					(50,976)	
Vintage 2016 - Non Res	(37,374)	(30,720)	(10,169)				(78,263)	
Vintage 2017 - Non Res	(19,415)	(47,791)	(47,791)	(21,240)			(136,237)	
Vintage 2018 - Non Res		(51,711)	(96,542)	(56,316)	-		(204,569)	
Vintage 2019 - Non Res			(24,424)	(54,495)	(27,392)	(19,040)	(125,351)	
Vintage 2020 - Non Res				(54,740)	(112,798)	(112,798)	(280,337)	
Vintage 2021 - Non Res					(157,692)	(291,123)	(448,815)	
Vintage 2022 - Non Res						(212,647)	(212,647)	
<b>Net Negative Found Revenues to Zero*</b>	<u>99,831</u>	<u>143,330</u>	<u>178,925</u>	<u>186,791</u>	<u>297,882</u>	<u>635,609</u>	<u>1,542,368</u>	
Subtotal - Non Res	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Vintage 2014 - Res	(22,005)						(22,005)	
Vintage 2015 - Res	(55,340)	(17,981)					(73,320)	
Vintage 2016 - Res	(67,984)	(39,657)	-				(107,642)	
Vintage 2017 - Res	(26,862)	(50,953)	(32,706)	(14,824)			(125,346)	
Vintage 2018 - Res		(28,325)	(59,309)	(34,597)	-		(122,230)	
Vintage 2019 - Res			(18,413)	(34,847)	(17,075)	(11,862)	(82,197)	
Vintage 2020 - Res				(3,392)	(10,517)	(10,517)	(24,425)	
Vintage 2021 - Res					(19,076)	(35,217)	(54,293)	
Vintage 2022 - Res						(27,888)	(27,888)	
<b>Net Negative Found Revenues to Zero*</b>	<u>172,192</u>	<u>136,917</u>	<u>110,428</u>	<u>87,659</u>	<u>46,668</u>	<u>85,484</u>	<u>639,347</u>	
Subtotal - Residential	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Found Revenues</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	

\* 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, 2020 - December 31, 2020**  
**Docket Number E-7, Sub 1249**

<b>Date</b>	<b>State</b>	<b>Program Name</b>	<b>Event Trigger</b>	<b>High / Low System Temp</b>	<b>Customers Notified</b>	<b>Load Control Devices or Participating Thermostats</b>	<b>MW Reduction (at Generator)</b>
6/3/2020	NC and SC	Power Manager - LCD	Full-shed System Test	88 / 67	239,689	288,463	225
6/22/2020	NC and SC	Power Manager - LCD	Full-shed System Test	89 / 70	239,416	288,110	286
7/15/2020	NC and SC	Power Manager - Thermostat	System Test	92 / 72	20,117	14,987	28
7/17/2020	NC and SC	Power Manager - Thermostat	System Test	93 / 73	20,108	14,827	25
7/27/2020	NC and SC	Power Manager - Thermostat	System Test	93 / 73	22,881	18,186	30
8/27/2020	NC and SC	Power Manager - LCD	Full-shed System Test	90 / 72	239,349	287,983	359
8/27/2020	NC and SC	Power Manager - Thermostat	System Test	90 / 72	25,295	19,542	34
9/2/2020	NC and SC	Power Manager - LCD	Full-shed System Test	91 / 73	239,538	288,191	320
9/3/2020	NC and SC	Power Manager - Thermostat	System Test	92 / 73	25,438	18,778	35
9/11/2020	NC and SC	Power Manager - LCD	Cycling Event to Maintain Reserves	90 / 71	239,322	287,923	262

**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; Power Manager - LCD indicates the number of customers (notifications not given)
- 'Load Control Devices' values represent the number of active switches; 'Participating Thermostats' values represent thermostats that participated during the entire event
- There were no PowerShare or EnegyWise Business curtailment events in 2020



## Duke Energy Carolinas, LLC – Executive Summary

### 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 2020 in comparison to as-filed data for Vintage 2020.

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 Summary<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020	Vintage 2020	% of
	As Filed	YTD December 31, 2020	Target
<b>NPV of Avoided Cost</b>	<b>\$372.9</b>	<b>\$328.0</b>	<b>88%</b>
<b>Program Cost</b>	<b>\$136.1</b>	<b>\$110.7</b>	<b>81%</b>
<b>MW<sup>2</sup></b>	<b>1,118.7</b>	<b>1,025.3</b>	<b>92%</b>
<b>MWH</b>	<b>694,991.1</b>	<b>650,226.3</b>	<b>94%</b>
<b>Units</b>	<b>81,704,028</b>	<b>43,919,579</b>	<b>54%</b>

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 Summary<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$124.3</b>	<b>\$111.8</b>	<b>90%</b>
<b>Program Cost</b>	<b>\$38.1</b>	<b>\$29.3</b>	<b>77%</b>
<b>MW<sup>2</sup></b>	<b>976.3</b>	<b>881.6</b>	<b>90%</b>
<b>MWH</b>	<b>2,557.6</b>	<b>1,297.2</b>	<b>51%</b>
<b>Units<sup>3</sup></b>	<b>922,905</b>	<b>831,970</b>	<b>90%</b>

- 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 2020.

### Carolinas Energy Efficiency Summary<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$248.5</b>	<b>\$216.2</b>	<b>87%</b>
<b>Program Cost</b>	<b>\$98.0</b>	<b>\$81.4</b>	<b>83%</b>
<b>MW<sup>2</sup></b>	<b>142.5</b>	<b>143.7</b>	<b>101%</b>
<b>MWH</b>	<b>692,433.5</b>	<b>648,929.1</b>	<b>94%</b>
<b>Units</b>	<b>80,781,123</b>	<b>43,087,609</b>	<b>53%</b>

- 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

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### **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

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### 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 and up to \$6,000 for HVAC replacement.) 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 Assistance<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020		% of Target
	As Filed	YTD December 31, 2020	
<b>NPV of Avoided Cost</b>	<b>\$1.7</b>	<b>\$1.1</b>	<b>65%</b>
<b>Program Cost</b>	<b>\$8.7</b>	<b>\$2.8</b>	<b>32%</b>
<b>MW</b>	<b>0.7</b>	<b>0.2</b>	<b>37%</b>
<b>MWH</b>	<b>4,246.0</b>	<b>2,166.3</b>	<b>51%</b>
<b>Units</b>	<b>10,406</b>	<b>2,255</b>	<b>22%</b>

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.

The Program started 2020 offering free walk-through energy assessments and installing measures in the homes of customers in Burlington NC, Charlotte NC and Blacksburg SC neighborhoods. Work stopped in March 2020 due to the Covid-19 virus pandemic and the program is still waiting on authorization to resume. It is anticipated that work on the Program will resume in the first quarter of 2021.

**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 2020, 382 homes received weatherization in conjunction with the DOE weatherization program, with 120 refrigerators replaced, 52 Tier 1 services provided, and 330 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
- Community presentations and partnerships
- Inclusion in community publications such as newsletters, etc.

## Income-Qualified Energy Efficiency and Weatherization Assistance Program

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**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.

### Potential Changes

The NES Program received authorization to begin offering in 2020 some additional measures to income-qualified customers with high energy burdens in the designated NES neighborhoods. This addition to the program is ready to begin as soon as the program resumes its field operation and has an annual goal of 1200 homes. Based on the opportunities identified during the energy assessment the customers could be eligible to receive the following measures:

1. Attic insulation
2. Duct Sealing
3. Air Sealing w/Blower Door
4. Floor/Belly Insulation in Mobile Homes
5. Smart Thermostat

### F. Evaluation, Measurement and Verification

The previous evaluation for the Neighborhood Energy Saver portion of the Program was completed late in the fourth quarter of 2019. The next evaluation, which will cover the period July 2018 –June 2019, is scheduled to begin in the first quarter of 2021. The final report is scheduled for completion in the fourth quarter of 2021.

## Energy Efficient Appliances and Devices

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### 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, water measures, smart strips and smart thermostats through the online store, website and points of purchase.

#### Free LED Program

The Free LED (Light Emitting Diode) program was 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 were offered through multiple channels to eligible customers, including an on-demand ordering platform which enabled eligible customers to request LEDs and have them shipped directly to their homes.

The program consisted of two types of eligible customers:

1. Customers who had not yet met or exceeded the Duke Energy bulb (CFL or LED) limit of 15. These customers had the option to choose kits in quantities of 3, 6, 8, 12, and 15 bulbs. Available order quantities presented were dependent on past campaign participation (i.e., coupons, Business Reply Cards (“BRCs”) and other Company programs offering lighting).
2. Customers who had 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 had the option to order bulbs in quantities of 6 or 12.

Customers had the flexibility to order and track their shipments through four separate channels:

- 1) Telephone: Customers could call a toll-free number to access the Interactive Voice Response (“IVR”) system, which provided prompts to facilitate the ordering process. The IVR was designed to handle requests for both English- and Spanish-speaking customers. Customers could easily validate their accounts, determine their eligibility and order their LEDs over the phone.
- 2) The Program’s Web Site: Customers could 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 had the ability to order LEDs, check their order status and view frequently asked questions.
- 4) Duke Energy Mobile App: Once a customer downloaded and authenticated their account on the mobile app, if eligible, the customer would see a “card” within the app offering the program. Like the other channels, customers had 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, and dimmable 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 products are listed below with the associated limits (per account)

## Energy Efficient Appliances and Devices

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- LED lighting, 36 per account.
  - LED lighting product offering is comprised of - reflectors, globes, candelabra, 3-way, dimmable bulbs. The incentive levels vary by bulb type
- Smart thermostats, 2 total
- Water measures, 3 total
- Smart Strips, 4 total
- LED fixtures (direct wires, portable, & outdoor photocell), limit 8 total
- Small appliance, dehumidifiers & air purifiers, limit 2 each total

Customers may choose to order additional products without the Company's incentive.

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.

### **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

## Energy Efficient Appliances and Devices

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).

### 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 Devices<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020	Vintage 2020	% of
	As Filed	YTD December 31, 2020	Target
<b>NPV of Avoided Cost</b>	<b>\$28.1</b>	<b>\$60.9</b>	<b>217%</b>
<b>Program Cost</b>	<b>\$9.1</b>	<b>\$22.1</b>	<b>243%</b>
<b>MW</b>	<b>11.2</b>	<b>15.8</b>	<b>140%</b>
<b>MWH</b>	<b>48,945.9</b>	<b>111,202.9</b>	<b>227%</b>
<b>Units</b>	<b>1,712,564</b>	<b>5,311,571</b>	<b>310%</b>

1) Values are reflected at the system level.

## Energy Efficient Appliances and Devices

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### D. Qualitative Analysis

#### Free LED Program

##### Highlights

Prior to the program discontinuing on 6/30, results were strong in 2020. Overall, over 205,000 orders were placed accounting for 2.6 million bulbs.

From an order channel perspective, the IVR intercept was the ordering channel that accounted for the most orders (50%). This was followed by the My Account authenticated portal accounting for 24% of orders in 2020 the Duke Energy public website with 21% of orders while the Duke Energy Mobile App rounded out the rest of the order channel splits accounting for 5% of orders.

##### Potential Changes

As planned, The Free LED program discontinued in Duke Energy Carolinas on June 30, 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).

#### 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. In 2020 the program delivered 169,789, bulbs, 11,976 smart thermostats, 4,389 smart strips, 194 water products, 329 LED fixtures, and 8 dehumidifiers to customers.

##### Issues

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

##### Potential Changes

The program continues to explore opportunity to facilitate ease of use shopping online as well as additional product offerings for consideration to enhance energy savings.

#### Retail Lighting

##### Highlights

In 2020, the program moved a total of 2,073,979 measures, including 1,578,284 LEDs and 495,695 fixtures into customers' homes.

The DEC Energy Efficiency Program had 12 lighting retail channels actively participating in 2020. While the top three retail channels account for 77% 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 81.9% of overall Program costs going directly to customers in the form of incentives. Most of the remaining Program costs (17.7%) were spent on implementation and administration of the Program. The remainder of costs, less than 1%, were spent on marketing and labor.

##### Issues

## Energy Efficient Appliances and Devices

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Despite continued success in 2020, potential effects of the COVID-19 pandemic remain on the program's radar. Based on experiences in 2020, impacts included and could continue to include:

- temporary store closures or limited hours impacting opportunity for the program.
- depending on COVID conditions, in-field store visits (training of store staff, proper placement of POP) may be paused to limit exposure of field team in stores for not only their safety, but that of store patrons and staff.
- Continued suspension of in-store and community events promoting the program and its product offering.

The Program continues to monitor this closely while adhering to Duke Energy Customer Engagement Safety Protocols.

### **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 2020, the program distributed over 439,000 water measures in over 46,000 kits to Duke Energy customers in the Carolinas. The kits delivered approximately 93,078 bathroom aerators, 46,537 kitchen aerators, 66,824 showerheads and 232,685 feet of pipe insulation. Of customers that redeemed the offer, 18% chose to upgrade their kit to either a wide format or wand showerhead.

#### **Issues**

The program continues to review customer satisfaction surveys to identify opportunities for improvement with installation rates and overall customer satisfaction.

### **Potential Changes**

The program will be enhancing the standard showerhead included in the kit in effort to increase installation rates and improve customer satisfaction in 2021.

### **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

## Energy Efficient Appliances and Devices

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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

The overall strategy of the program was to reach residential customers who have not adopted LED lighting. The Company tried to educate customers on the benefits of LEDs while addressing barriers for customers who had not participated in the program.

From an outreach standpoint prior to the program's end, it relied on its My Account intercept, a pop up that launched as a customer logged into the My Account authenticated portal to pay their bill or view account information, to generate interest in the program. A customer could click "continue" to move to the Free LED ordering page. In 2020, approximately 24% of orders came as a result of this intercept. In addition to the My Account intercept, the program leveraged its IVR Intercept that presented when a customer calls into the Duke Energy customer service line. This channel accounted for 50% of 2020 orders.

In addition to the intercepts, the program also solicited customers via emails. 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).

#### 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

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.

## Energy Efficient Appliances and Devices

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### Retail Lighting

The program's marketing efforts for 2020 include the following:

- Point of Purchase materials at participating retailer locations
- Duke Energy Program website
- General Awareness Email Campaigns
- Cross-Promotional Opportunities in via internal marketing channels (Other Programs, Residential Newsletters)

In general, 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.

As a result of the COVID-19 pandemic, the program has suspended its normal advertised events at key retailers as well as community outreach events (national night out, cultural events, etc.) until further notice. This decision will be evaluated on a regular basis with activities only resuming when appropriate conditions permit.

### 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.

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.

### 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/Marketplace Program and the DEC Retail Lighting Program are tentatively scheduled for a final report date in the fourth quarter of 2021.

## Energy Efficient Appliances and Devices

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### **Heat Pump Water Heaters/Pool Pump**

The evaluation for Heat Pump Water Heater and Variable Speed Pool Pump measures are scheduled for evaluation work to begin in mid-year 2022, with a completion date in mid-2023. The timeframe for a final report has been pushed out one year to allow additional participation in the referral component of the program.

### **Save Energy & Water**

The final evaluation was delivered in 2020 and a revised report to account for corrections to the showerheads was presented at the October 2020 Collaborative.

The next evaluation is scheduled to begin activities in mid-2021, with a final report scheduled for mid-2022.

# Energy Efficient Appliances and Devices

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## G. Appendix

### Free LED Program– Direct Mail New Customer Letter:



### Free LED Direct Mail Campaign:



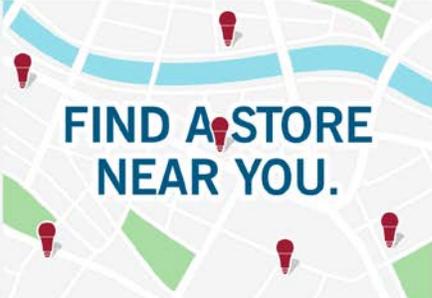
### Free LED Program – Email Campaign:



# Energy Efficient Appliances and Devices

## Retail Lighting General Awareness Email:

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

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

*BUILDING A SMARTER ENERGY FUTURE®*

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# Energy Efficient Appliances and Devices

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## High Efficiency Pool Pump Digital Ad

**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 · 0

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

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

Lincoln is not responsible for the fulfillment of the rebate.

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**DUKE ENERGY | Smart Saver®**

## Energy Efficient Appliances and Devices

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### High Efficiency Heat Pump Water Heater Digital Media

Water heater over  
10 years old?  
**Don't wait until it fails.**

Get \$350 when you upgrade  
your water heater.

[Find a contractor](#) ↗

# 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.

In 2020, many of the aspects of the Energy Efficiency Education program were impacted as a result of the COVID-19 pandemic. All in-school performances ceased as of March 13, 2020. This resulted in the program pivoting and offering livestream performances so school and students could still participate. More details are provided below in section D.

## 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 Education<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$3.3	\$1.3	40%
Program Cost	\$2.6	\$1.1	42%
MW	1.7	0.4	26%
MWH	7,034.8	3,380.3	48%
Units	32,950	12,479	38%

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.

## Energy Efficiency Education Program

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The spring semester of the 2019-2020 school year brought on unprecedented challenges related to the COVID-19 pandemic forcing schools to close and revert to virtual learning. As a result, live performances ceased on March 13, 2020. Overall, 29 scheduled schools representing close to 9,000 children had to have their performance cancelled. This also impacted the ability to the program administrator to continue outreach to additional schools that may have been interested in having a performance in the Spring months. Despite this, the program provided these schools with an educational video as well as the educational materials that could be accessed via the program website.

After the conclusion of the spring semester, the program began to develop a plan to continue to offer these educational performances via online livestream for all three levels of schooling in the Fall semester. Given the uncertainty around whether or not a school is remote learning or using a hybrid plan, the program would be able to offer time slots to schools to view a live host providing educational information and narrating between four different segments of the theatrical performance that's normally given in schools by professional acting troupes.

Consistent with past years, each performance had content that was appropriate with its educational level. Elementary schools were able to view livestream performances of "Space Station Conservation"; "The Conservation Crew" was made available to Middle schools and High Schools were able to watch "Your Plant, Your Future". Students and teachers also had access to a Q&A with the host and an e-learning package that includes games, quizzes and lesson plans for the class that reinforce concepts from the show.

Overall in 2020, a total of 428 schools participated in the program in the Company's DEC service territory, reaching approximately 134,576 students and spurring the distribution of 12,479 kits.

Once an eligible customer submits a completed energy efficiency, the Energy Efficiency Starter Kit is shipped for delivery within two to four weeks.

In order to help encourage student participation, the program vendor, The National Theatre for Children, would reward schools \$250 for every 100 Energy Efficient kit requests. Additionally, various rewards for teachers and participating families were offered to encourage additional kit requests.

### 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 all school levels. Survey data from January through December indicated 87% of teachers surveyed had an overall satisfaction of rating of at least 8 on a scale of 1 to 10.
- Enhancing the offering by providing educational 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; both of which are ineligible for an EE Starter Kit.
- 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.

## Energy Efficiency Education Program

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### **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**

An evaluation report covering an evaluation period of August 2017 through July 2018 was completed in 2019. Evaluation work is currently underway for the period covering August 2019 – July 2020. The final report is scheduled to be completed in the third quarter of 2021.

## 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.

Additionally, bath aerators and pipe wrap are also available for free at the time of the assessment. New discounted measures may be purchased and installed during the assessment including LED specialty lighting (i.e. Globes, Candelabra and Recessed), Hand-held Showerhead, Smart Thermostats and a Blower Door test.

### 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 Assessments<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$3.6</b>	<b>\$4.6</b>	<b>128%</b>
<b>Program Cost</b>	<b>\$2.8</b>	<b>\$3.4</b>	<b>120%</b>
<b>MW</b>	<b>0.7</b>	<b>0.9</b>	<b>130%</b>
<b>MWH</b>	<b>6,119.6</b>	<b>7,891.6</b>	<b>129%</b>
<b>Units</b>	<b>26,118</b>	<b>64,125</b>	<b>246%</b>

1) Values are reflected at the system level.

2) Units represent number of kits, including additional LEDs.

## Energy Assessments

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### 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. 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 2020, the program conducted 10,018 assessments and installed 30,972 additional LEDs. The program additionally installed 10,125 feet of pipe insulation and 2,538 additional bathroom aerators. Beginning in August 2020, the program began offering new discounted measures. The program installed 2,807 specialty LED globes, 2,842 recessed bulbs, 4,548 candelabra LEDs and 194 Hand-held Showerheads. Beginning in November 2020, 81 Smart Thermostats were installed to eligible customers. The 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 2020 include a continuing focus on cross promotion of other programs and integration of in-field referrals for FindItDuke.

#### 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
- Including townhomes/condos for audit eligibility
- Implementing post audit follow up with reminders of recommendations/referrals.

#### Issues

The program was shut down in mid-March through late June due to the Covid pandemic in 2020. Duke worked collaboratively with the vendor to build safety protocols, procedures and use of Personal Protective Equipment (PPE) into the assessment process for the relaunch in June.

Additionally, the program was shut down again during the holidays (December) to limit risks for customers and the vendor during the high Covid transmission period which impacted the overall performance of the program.

Also, the program delayed the training and launch of the Blower Door measure in 2020, due to the Covid pandemic and additional time required in the home.

The program continues to coordinate closely with the vendor to monitor incoming demand, to balance marketing and to ensure adequate appointment slots are available

### 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. The Program management team continues to explore additional channels to drive awareness such as social,

## Energy Assessments

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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. In between larger initiatives, such as bill inserts, the program utilizes direct mail which can easily be modified based on demand. 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](http://www.duke-energy.com).

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

To accommodate the additional measures now included in the energy assessment program and to work around the program suspension due to COVID, the evaluation timeframe has been pushed back to cover the period Sept 2020 – Aug 2021. The activities will begin in earnest in Fall 2021 with a final report scheduled for First Quarter 2023.

# My Home Energy Report

## 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, 2020, over 1.19 million single-family DEC customers and over 167 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, 2020, over 120 thousand single-family customers and over 15 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 Report<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$20.7</b>	<b>\$23.9</b>	<b>115%</b>
<b>Program Cost</b>	<b>\$11.6</b>	<b>\$12.7</b>	<b>109%</b>
<b>MW<sup>2</sup></b>	<b>77.7</b>	<b>92.4</b>	<b>119%</b>
<b>MWH<sup>2</sup></b>	<b>306,337.9</b>	<b>332,105.4</b>	<b>108%</b>
<b>Units<sup>3</sup></b>	<b>1,355,300</b>	<b>1,358,892</b>	<b>100%</b>

1) Values are reflected at the system level.

2) Values represent the annual MW and MWH savings associated with the December 2020 month end participation.

3) At month-end December 2020, single-family participation was 1,191,807, while multifamily participation was 167,085

## 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

## My Home Energy Report

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the Program represent 0.03% of single-family Program participants and .03% of multi-family Program participants.

### Highlights

In 2020, the program continued the Pilot of new AMI usage charts on the eHERs which show customers the difference in average weekly usage by hour from one month to the next. Feedback continues to be positive.

### 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 2020, the program continued its email and on-report marketing campaigns to further awareness of the interactive portal. These campaigns resulted in an increase of over 26 thousand customers enrolling in the interactive portal.

### F. Evaluation, Measurement and Verification

The process and impact evaluation report, combined with DEP, was completed and presented to the Carolinas Collaborative in 2019.

An evaluation covering the period Jan 2020 – Dec 2020 will begin in Q1-2021 and will be completed in Q4-2021.

## Residential –Smart \$aver® Energy Efficiency Program

### A. Description

The Residential – Smart \$aver® 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

#### HVAC Energy Efficiency<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020	Vintage 2020	% of
	As Filed	YTD December 31, 2020	Target
<b>NPV of Avoided Cost</b>	<b>\$9.5</b>	<b>\$7.8</b>	<b>83%</b>
<b>Program Cost</b>	<b>\$7.7</b>	<b>\$7.6</b>	<b>99%</b>
<b>MW</b>	<b>2.5</b>	<b>2.2</b>	<b>89%</b>
<b>MWH</b>	<b>8,869.8</b>	<b>7,689.4</b>	<b>87%</b>
<b>Units</b>	<b>29,692</b>	<b>27,153</b>	<b>91%</b>

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 higher incentive amounts for greater SEER equipment has encouraged customers to install higher efficiency equipment as well as having it managed with newer thermostat technologies.

The Smart \$aver ® incentive program has continued strong results during the second half of 2020. Duke Energy Carolinas participation was over 99% consistent when compared to the same 6-month time period in 2019 and YTD 2020 participation, was 28,145 as compared to 2019 annual participation of 26,626 for an approx. 5.7 % increase over last year.

The program will continue to emphasize best practices and to build support by offering additional training to the Trade Allies (i.e. EV Charging Install training, Social Media Marketing, etc.) and modifications to program requirements when needed.

The Midstream effort got off the ground in this year with participation from one pool pump distributor that serves throughout the Carolinas and Midwest areas. We have processed 38 pool pump midstream rebates since this channel became active in June.

## Residential –Smart \$aver® Energy Efficiency Program

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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.

The Find it Duke referral channel continues to be successful despite an expected decrease in activity due to COVID-19 concerns during 2020. A 50+% decrease in referral generation during Q2, rebounded and continued an upward trend as we reopened marketing campaigns in Q3. The program generated 8,322 DEC customer referrals for 2020 as compared to 8762 in 2019. Overall, a slight decrease in referrals by 10% in 2020. Customers who responded to a survey to rate their experience provided an average contractor rating of 4.81 out of 5.0 stars during 2020.

### 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. Particularly, buy-in from Tree Service companies has been very difficult and as of Dec 2020, we have only limited coverage (5 companies). We will continue to build the network; however, the market uncertainty and COVID-related concerns remained the prevailing issue for 2020.

### 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. Point of Sale marketing materials have been in place throughout the Carolinas in Lowe’s and Home Depot stores that allow customers to download coupons and take advantage of instant rebates at time of purchase. The Midstream channel has also been used to promote Pool Pump rebates through one national distributor along with local Pool Retailers throughout NC/SC.

Various customer marketing campaigns during the first half of 2020 were halted, again due to COVID concerns, but restarted in July and leveraged channels such as TV, radio, social media and email messaging in order to build awareness of the referral service throughout the second half of 2020. Other marketing efforts, such as paid search and co-branded special offer campaigns in October and November created awareness and drove referral volumes up for the channel.

### F. Evaluation, Measurement and Verification

No evaluation activities were completed in 2020. The evaluation for the HVAC measures is scheduled for evaluation work to begin in mid-year 2022, with a completion date in mid-2023. The timeframe for a final report has been pushed out one year to allow additional participation in the referral component of the program.

# Residential –Smart \$aver® 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

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Feb 23 2021

# Residential –Smart \$aver® Energy Efficiency Program

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Feb 23 2021

## Residential Pool Pump- Email Campaign

**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\**

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

## HPWH Partnership - Email Campaign

# 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](tel: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

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Feb 23 2021

## 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** Find possibilities | 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

**Heat pump water heater. Cut water heating costs up to 50%. SAVE NOW**

Also on AARP

Creative: HPWH

# Multi-Family Energy Efficiency Program

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Feb 23 2021

## 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 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 Efficiency<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$10.1	\$2.2	21%
Program Cost	\$3.6	\$1.6	45%
MW	2.1	0.5	24%
MWH	20,180.2	4,042.1	20%
Units	368,226	98,419	27%

1) Values are reflected at the system level.

## D. Qualitative Analysis

### Highlights

Through March 2020, the Program completed installations at 54 properties., accounting for over 7,443 units. The Program installed 75,320 measures with lighting representing 76% of the measures and 23,099 water measures representing the remaining 24%. Of the lighting measures, the program installed over 39,000 Alines, over 11,000 candelabras, over 16,000 globes, 3,000 recessed and 4,000 track LED bulbs. The water measures consisted of over 7,000 aerators, over 10,000 feet of pipe warp and over 4,000 showerheads.

### Issues

## Multi-Family Energy Efficiency Program

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Due to the Covid pandemic and safety concerns for customers and employees, the program was suspended in March impacting the ability to achieve the program goals.

### Potential Changes

In early 2021, the Program will file a request to add 1.25 GPM showerheads and discounted smart thermostats 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.

The program will continue to implement new Covid safety protocols and processes in preparation for relaunch in 2021.

### 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.

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 was completed in April 2020, covering the period January 2017 - May 2018. The evaluation determined the net annual energy and demand associated with the program participants and found that reported gross savings were 15% higher than verified. The evaluation used a combination of surveys, on site data collection, a lighting logger study, and engineering analysis to determine the impacts for the program. The free ridership was estimated at 7% with very limited spillover, for an overall NTG of 93%.

## G. 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 **[\$XXX]** 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](mailto: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.

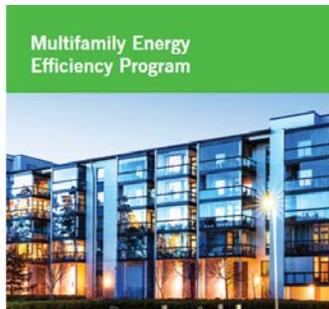
### What is the next step?

Call 888.297.1671 or email [dukeenergymultifamilyep@franklinenergy.com](mailto:dukeenergymultifamilyep@franklinenergy.com) to schedule an appointment for an energy assessment.



Contact us today!

Phone: 888.297.1671 | Website: [duke-energy.com/multifamily](http://duke-energy.com/multifamily)  
Email: [dukeenergymultifamilyep@franklinenergy.com](mailto: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.



#### 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



\*All 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



## 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

# 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](http://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.

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# Multi-Family Energy Efficiency Program

## 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](http://duke-energy.com/multifamily)  
Email [dukeenergymultifamilyeep@franklinenergy.com](mailto:dukeenergymultifamilyeep@franklinenergy.com)



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](http://duke-energy.com/multifamily)  
Email [dukeenergymultifamilyeep@franklinenergy.com](mailto: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	
<b>1,015 kWh</b>		<b>\$107</b>	
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
<b>2,771,664 kWh</b>	<b>\$434,089</b>		<b>314</b>
			Trees Planted
			<b>37,653</b>

### 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®

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### A. Description

Power Manager® (“Program”) is a residential demand response program that helps ensure power reliability during peak demand periods or if continuity of service is threatened. Duke Energy Carolinas, LLC (the “Company”) provides two program options designed to reduce load from air conditioning or electric heating when events are called.

The original Power Manager option utilizes a Load Control Device (LCD) installed near the outdoor unit of a qualifying AC. This enables a participating customer’s AC’s run-time to be reduced when the Company initiates a control event. The Company can perform cycling (allowing the AC to run a portion of each half hour during an event) or full-shed interruption (AC is prevented from running during an event) at any time to mitigate capacity constraints in the generation, transmission or distribution systems.

The LCD option is available to qualifying single family homeowners. Participants receive an incentive of an \$8 monthly credit on their July through October bills (\$32 annually).

The customer’s AC system experiences no adverse impacts because the load control device has built-in safeguards to prevent the “short cycling” of the AC. The indoor fan is not controlled and may run during an event circulating air.

Available since late December 2019, the program’s smart thermostat option utilizes a qualifying smart thermostat to remotely change participants’ temperature setting when the Company initiates a control event. By adjusting the thermostat’s setting (up for cooling or down for heating), the system’s run-time and energy use can be reduced during an event.

The Company has engaged EnergyHub to provide services in support of the smart thermostat option. Services include: the control system used in managing events, participant incentives, relationships with participating thermostat manufacturers, and coordinating marketing efforts between the Company and thermostat manufacturers.

The smart thermostat option is available to qualifying residential customers who have registered their thermostat(s) with participating manufacturers, currently: Alarm.com/Vivint, ecobee, Honeywell, Lux, Nest, Radio Thermostat and Sensi. Upon successful enrollment, customers are emailed a \$75 Visa e-gift card, and each subsequent year they remain on the program they are emailed a \$25 Visa e-gift card.

### Audience

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

The LCD option is available to the Company’s qualifying residential customers who have installed, connected to the internet and registered their qualifying smart thermostat with the thermostat’s manufacturer.

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

## Power Manager®

PowerManager<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020		% of Target
	As Filed	YTD December 31, 2020	
<b>NPV of Avoided Cost</b>	<b>\$77.7</b>	<b>\$74.8</b>	<b>96%</b>
<b>Program Cost</b>	<b>\$19.4</b>	<b>\$14.3</b>	<b>74%</b>
<b>MW<sup>2</sup></b>	<b>616.2</b>	<b>593.2</b>	<b>96%</b>
<b>MWH</b>	<b>0.0</b>	<b>N/A</b>	<b>-</b>
<b>Units<sup>3</sup></b>	<b>580,159</b>	<b>558,495</b>	<b>96%</b>

**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 2020, we had the ability to shed 609.4 MW (at the plant), representing 98.9% 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 289,352 Power Manager devices and 32,503 thermostats at month-end December 2020.

**D. Qualitative Analysis**

## LCD Option

Results of Nexant's 2019 Evaluation, Measurement and Verification study of the LCD option indicated a decrease in load reduction capabilities from previous years. After working with Nexant to validate these findings, the Company and its LCD supplier, Eaton Corporation, investigated possible reasons.

Ultimately, the issue was found to be a change implemented prior to the 2019 event season enabling the Company's Demand Response Operations team to geographically target events based on the Company's three transmission regions. With NC having all three and SC having two of the regions, there are five distinct geographic areas from which the DR team could select for Power Manager events.

It is important to note that the regional control capability was not set up for the Company's Energy Control Center. As a result, had there been an actual emergency, the ECC initiated control event would have resulted in the expected load reduction seen in previous years.

Four test events were conducted in 2020:

- June 3<sup>rd</sup> – a brief full-shed test using the regional approach with all five areas was conducted. As expected, the results from this test mirrored the M&V findings from 2019.
- June 23<sup>rd</sup>, August 27<sup>th</sup> and September 2<sup>nd</sup> – brief full-shed tests were conducted using the non-regional event command structure used prior to 2019. All three showed results in line with previous M&V evaluations and Company observed load reductions in and before 2018.

On September 11<sup>th</sup>, the ECC initiated a cycling event to maintain reserve margins for the DEC generation system. The LCD system delivered the expected load reduction, demonstrating the effectiveness of the program in an actual event.

COVID-19 resulted in the Company halting all field work, except emergency service calls, beginning March 16<sup>th</sup>. For over 3 months, switch installations, inspections, reconnections and removals were stopped. Franklin Energy, the Company's field services contractor, furloughed nearly all their employees, keeping only a small staff to handle customers reporting issues with their HVAC system.

In mid-June, the Company gave approval for Franklin Energy to begin bringing back their employees for training and resumption of field work. Franklin Energy divided their team's return into three groups spread over three weeks in order to limit exposure risk among the teams. The first two days of each group's return were spent in training on safe work practices, COVID-19 safety protocols and other work processes. The first of these sessions began June 22<sup>nd</sup> and field work resumed June 24<sup>th</sup>.

## Power Manager®

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Since then, except for one field tech who tested positive in July, the Franklin Energy staff has been COVID free. This positive test resulted in a temporary work stoppage as workers quarantined to ensure no additional positive cases were reported.

### Smart Thermostat Option

Because enrollment and ongoing support of the smart thermostat option do not require field visits, COVID-19 had little or no effect on the rollout or operational efforts. EnergyHub and its staff are based in Brooklyn, NY. With the NYC area being one of the first regions to be hit hard with the virus, there were some very minor initial delays as EnergyHub support staff began the transition to work at home.

Originally, the smart thermostat option was designed for reducing only summer AC load. The Company worked with EnergyHub to develop electric heating load reduction to support the inclusion of a winter-focused program option. This new capability was added to the Power Manager Riders in NC and SC in 2020 (October and December respectively).

Per the Riders, the Company suspended summer only enrollments in the smart thermostat option on December 31, 2020. Customers enrolled on or before December 31 in the summer only option were grandfathered. From that date forward, enrollments are for the winter-focused option, allowing the Company to control participants' central AC and electric central heating system via qualifying smart thermostat.

Five smart thermostat events were called in the summer of 2020: July 15, July 17, July 27, August 27 and September 3. These successful events served as tests and learning experiences for the Company, EnergyHub and participating customers.

## E. Marketing Strategy

### LCD Option

In response to COVID, all marketing of the LCD option was stopped for approximately three months beginning in mid-March. Prior to and following this marketing cessation, outbound telephone calls were the primary marketing channel; with additional outreach via email, the Company's residential newsletter, banner ads on the Company's website and a Facebook ad.

Despite the reduced marketing, net growth for the year was 2,494 customers and 2,879 air conditioners. At year-end, there were 240,551 customers (NC: 182,420 and SC: 58,131) and 289,352 air conditioners (NC: 218,745 and SC: 70,607) on the program.

### Smart Thermostat Option

The primary marketing channel for the smart thermostat option is through the participating thermostat companies. Duke Energy, working through EnergyHub, collaborated with these companies in the development of the Power Manager smart thermostat marketing messages.

Once a customer has installed and registered their smart thermostat with the manufacturer, they will be presented with information on the program. This information is shared through various means and times by each thermostat company – channels include the thermostat app, mobile app, email communications, etc. Using these different channels, customers are provided access to the program's requirements, information and enrollment application.

The Company supplemented the thermostat manufacturers' marketing by including messaging throughout the year with various promotions of smart thermostats available through the Company's Online Savings Store.

Late in the year, to help kick-off the new winter-focused option, the Company utilized a limited time offer that increased the \$75 enrollment incentive to \$90 for customers who enrolled by December 31, 2020.

## Power Manager®

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At year-end, 24,743 customers (32,503 thermostats) were participating in the smart thermostat option, an excellent start for this new program and exceeding the goal of 18,000 for the first year.

The Company updated the Power Manager website, revised existing videos and created a new video in support of the smart thermostat option. These may be seen on the Power Manager website: <http://www.duke-energy.com/north-carolina/savings/power-manager.asp>.

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

Results for the Summer 2019 Power Manager program were completed in the second quarter of 2020. The results of the evaluation however, showed evidence of M&V feeder issues that led to lower than expected results. Subsequently, Duke Energy identified and corrected the issues. Nexant and Duke Energy agreed to conduct a subsequent impact analysis for the 2020 Power Manager season in order to verify those corrective measures and to re-calibrate the program's performance under fully operational conditions. The results of the Summer 2020 Power Manager evaluation, scheduled for First Quarter 2021, will be included as an appendix to the Summer 2019 evaluation report.

# Power Manager®

## G. Appendix

### LCD Option Marketing Examples: Emails

#### February

**DUKE ENERGY**

It starts with you ...

... and leads to a better community.

Watch our video to see how you can help our community and the environment with Power Manager®. It's easy, smart and then it's effortless.

As a bonus, you'll get \$32 off your summer bills.

**ENROLL TODAY**

**WATCH VIDEO**

Power Manager is an easy way to make a difference. It helps ...

- Use natural resources wisely
- Delay the need for more power plants and transmission lines
- Keep energy rates more affordable

*BUILDING A SMARTER ENERGY FUTURE™*

#### February Follow-up

**DUKE ENERGY**

An effortless way to get up to \$32 in bill credits.

Watch our [video](#) to see how it works.

During an energy management event, a signal is automatically sent to your central air conditioning system.

**ENROLL TODAY**

Power Manager® is a free and easy program that helps reduce overall energy use during periods of high demand. You simply enroll and then a small switch is installed on or near your central air conditioning system so it will temporarily use less energy when demand is especially high.

It's simple, easy and you don't have to do a thing – except enjoy your bill credits!

**ENROLL TODAY**

*BUILDING A SMARTER ENERGY FUTURE™*

#### August

**DUKE ENERGY**

Grow your savings.

Reduce your summer energy bill with Power Manager. It's easy to sign up and we take care of the rest! And to show our appreciation, you receive up to \$32 in bill credits.

**ENROLL TODAY**

How it works:

- A professional connects a Power Manager device to your AC unit.
- When summer energy demand is especially high, your AC's runtime is reduced.
- This only happens a few times a year, and most people say they don't even notice.

For more details on how it works, watch our [video](#).

*BUILDING A SMARTER ENERGY FUTURE™*

# Power Manager®

Facebook – February and early March

(After the ad below had been up for a short time, Facebook pulled it because of the word “free”. The second sentence was changed to “It’s an easy way to make a difference.” and the ad was reinstated.)

**Duke Energy**  
Sponsored · ⚙️

Get up to \$32 off your bill when you enroll in Power Manager. It's easy and it's free.

**GROW YOUR SAVINGS**

DUKE-ENERGY.COM/POWERMANAGER

**Get up to \$32 each year**  
Enroll in Power Manager

[Sign Up](#)

👍 Like    💬 Comment    ➦ Share

Residential Newsletter – October



## Help the environment.

Power Manager® helps reduce energy demand when it's higher than normal.

[ENROLL TODAY](#)

Website Banner Ad – various times



## Grow your savings >

Enroll in EnergyWise® Home and get up to \$147 in annual bill credits.

# Power Manager®

OFFICIAL COPY

Feb 23 2021

## Return to Work – Customer Notification Postcards

### Installations

**DUKE ENERGY**  
Power Manager  
ST29A | 400 S. Tryon Street  
Charlotte, NC 28202

**We're resuming Power Manager® installations with safety in mind.**

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

BUILDING A SMARTER ENERGY FUTURE®

PRESORTED  
STANDARD  
U.S. POSTAGE  
PAID  
CITY ST  
PERMIT NO. XXXX

Thank you for enrolling in **Power Manager®**. Your participation helps reduce peak energy demand in the summer by allowing us to reduce your air conditioner (AC) runtime on a few weekday afternoons. Plus, you get up to **\$32 in summer bill credits** each year.

Power Manager installations were suspended due to COVID-19. We're now resuming work in ways to help protect the health and safety of our customers and workers.

- All work will be done outside your home.
- Technicians will wear proper identification and protective equipment.
- Technicians will follow strict social distancing practices.
- Please do not approach workers, for their safety and yours.

Unless we hear from you, we will install the Power Manager device near your AC unit outside your home at **<789 Main St.>**

In most cases you do not need to be home for the installation. If you have a locked fence or outdoor pets, please call to schedule the installation. If you no longer wish to participate or you have questions, please call us at **888.463.5022**.

To learn more, visit [duke-energy.com/PowerManagerDevice](http://duke-energy.com/PowerManagerDevice).

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### Removals & Reconnections

**DUKE ENERGY**  
Power Manager  
ST29A | 400 S. Tryon Street  
Charlotte, NC 28202

**Important information about Power Manager®**

<<FirstName LastName>> or Current Resident  
<<Street address>>  
<<City, State ZIP>>

BUILDING A SMARTER ENERGY FUTURE®

PRESORTED  
STANDARD  
U.S. POSTAGE  
PAID  
CITY ST  
PERMIT NO. XXXX

**We're sad to see you leave the Power Manager® program.**

Power Manager provides participants up to \$32 in annual bill credits for allowing us to reduce overall energy demand by limiting air conditioner (AC) runtime on a few summer weekday afternoons.

Due to COVID-19, we suspended Power Manager device removal and instead remotely disabled the device at your home, preventing it from controlling your AC. **We will be coming to remove the Power Manager device soon.**

We're resuming work in ways to help protect the health and safety of our customers and workers.

- All work will be done outside your home.
- Technicians will practice social distancing, and wear proper identification and protective equipment.
- Please do not approach workers, for their safety and yours.

Unless we hear from you, we will remove the Power Manager device from your home at **<789 Main St.>**

In nearly all cases, you do not need to be home. If you would like to stay on the program, have a locked fence or outdoor pets, or have concerns, please call us at **888.463.5022**.

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**Thank you for participating in Power Manager®.**

As a participant, you receive **up to \$32 in annual bill credits** for allowing us to reduce peak electric demand by limiting your air conditioner's runtime on a few summer weekday afternoons.

Due to COVID-19, we suspended Power Manager device reconnections. **We're now resuming work in ways to help protect the health and safety of our customers and workers.**

- All work will be done outside your home.
- Technicians will wear proper identification and protective equipment.
- Technicians will follow strict social distancing practices.
- Please do not approach workers, for their safety and yours.

In the coming weeks, we will be reconnecting the Power Manager device near your AC unit outside your home at **<789 Main St.>**

In nearly all cases, you do not need to be home. However, if your property has a locked fence or outdoor pets, or if you have questions, please call us at **888.463.5022**.

To learn more, visit [duke-energy.com/PowerManager](http://duke-energy.com/PowerManager).

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# Power Manager®

## Smart Thermostat

### Co-marketing with Online Savings Store

July – “We’re here to help”  
Direct Mail

**WE ARE HERE TO HELP YOU SAVE.**

DUKE ENERGY PROGRESSLESS  
1320 N. LAKE ST. #1000  
CHESAPEAKE, VA 23020

Save up to \$100 off a Google Nest thermostat.

DUKE ENERGY ONLINE SAVINGS STORE

Shop our smart thermostat sale today!

**We can help you save this summer.**  
The Online Savings Store can help you save with a variety of products that can help you make your home more energy efficient. Considering making the switch to a smart thermostat? Shop by August 7 and get huge savings on a Google Nest thermostat. We'll even ship your order for FREE!

**WHY SWITCH TO A SMART THERMOSTAT?**

- REMOTE ACCESS**  
With the app on your phone, you can adjust the temperature from anywhere.
- SAVE ENERGY**  
You can save an average of 10% to 12% on heating bills and 15% on cooling bills.
- EASY INSTALLATION**  
Most people install their smart thermostat in 30 minutes or less.

**Order online**  
duke-energy.com/Help

Log in with your phone number or account number and the last four digits of the account holder's Social Security number.  
Smart thermostat sale ends August 7.

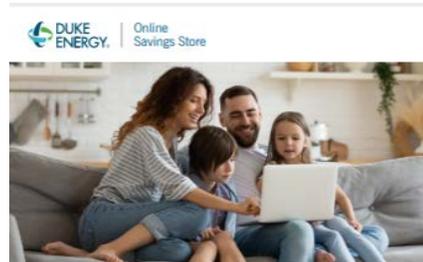
**Enroll your smart thermostat. Get \$75!**  
After you purchase and install your discounted smart thermostat, successfully enroll in the Power Manager® Home program to receive a \$75 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program. Visit duke-energy.com/Help to learn more.

**Google Nest Learning Thermostat**  
Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.  
Retail price: \$249  
Manufacturer sale: -\$50  
Duke Energy Progress instant savings: -\$50  
Your price: \$149

**Google Nest Thermostat E**  
Its simple design and frosted display blend into the background. Change the temperature from anywhere with your phone.  
Retail price: \$169  
Manufacturer sale: -\$30  
Duke Energy Progress instant savings: -\$50  
Your price: \$89

Visit the Online Savings Store for more deals on smart thermostats!  
Limit 2 smart thermostats per customer account. While supplies last.

## Email



We are here to help you save on smart thermostats.

The Online Savings Store can help you save with a variety of products that can help you make your home more energy efficient. Considering making the switch to a smart thermostat? Shop by August 7 and save up to \$100 on a Google Nest thermostat.

We'll even ship your order for FREE!

SHOP NOW

**Save \$100**

**Google Nest Learning Thermostat**

Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.

Retail price:	\$249
Manufacturer sale:	-\$50
Duke Energy instant savings:	-\$50
<b>Your price:</b>	<b>\$149</b>

**Save \$80**

**Google Nest Thermostat E**

Its simple design and frosted display blend into the background. Change the temperature from anywhere with your phone.

Retail price:	\$169
Manufacturer sale:	-\$30
Duke Energy instant savings:	-\$50
<b>Your price:</b>	<b>\$89</b>

**Enroll your smart thermostat. Get \$75!**

After you purchase and install your discounted smart thermostat, successfully enroll in the Power Manager® Smart Thermostat program to receive a \$75 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program.

LEARN MORE

OFFICIAL COPY

Feb 23 2021

# Power Manager®

November – Black Friday

## We're here to help you save with our Black Friday Sale!

Save on a variety of smart thermostats. Shipping is even FREE!



**Google Nest Learning Thermostat**  
Learns your schedule to program itself, turns itself down when you are away and lets you change the temperature from your phone.

Retail price: \$249  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$50  
**Your price: \$149**

On sale: Nov. 25-Dec. 2



**ecobee Smart Thermostat with Voice**  
With SmartSensor to help manage hot or cold spots, it changes the way you experience comfort and puts you in control of your home.

Retail price: \$249  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$50  
**Your price: \$149**

On sale: Nov. 16-Dec. 2



**ecobee3 lite**  
Works with room sensors to measure temperature and occupancy in the rooms they're in to help manage hot and cold spots throughout the home. Sensors sold separately.

Retail price: \$169  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$30  
**Your price: \$89**

On sale: Nov. 16-Dec. 2



**Emerson Sensi™ Touch Smart Thermostat**  
Puts comfort control at your fingertips. At home or on the go, the easy-to-use interface lets you adjust your thermostat with just a tap.

Retail price: \$169  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$30  
**Your price: \$89**

On sale: Nov. 16-Dec. 2



**Honeywell Wi-Fi Smart Color Thermostat**  
Packed with smart features, a customizable touch screen and simple setup, you can change the screen's background color to match wall color, mood or favorite team.

Retail price: \$159  
Duke Energy Progress instant savings: – \$50  
Manufacturer sale: – \$70  
**Your price: \$39**

On sale: Nov. 16-Dec. 5



Order online:  
[duke-energy.com/BlackFriday](http://duke-energy.com/BlackFriday)

Log in with your phone number or account number and the last four digits of the account holder's Social Security number.

Limit 2 smart thermostats per customer account. While supplies last.

### Enroll your thermostat by Dec. 31 and get \$90!

After you purchase and install your discounted smart thermostat, successfully enroll in the EnergyWise® Home program to receive a \$90 e-gift card (limit 1 per household). Plus, you'll receive a \$25 e-gift card each year you are enrolled in the program. Visit [duke-energy.com/BlackFriday](http://duke-energy.com/BlackFriday) to learn more.

Visit the Online Savings Store for instant savings on more thermostats.

\*Instant savings come from Duke Energy Progress' energy efficiency program. Customer agrees to the Terms and Conditions when placing an order. Offer good while supplies last and total purchase limits per customer account at the incentive price apply. If you previously purchased from our Savings Store and are over your limit, you are ineligible to receive the above discounts but you will purchase merchandise priced down through our online store. Products, prices, availability, specifications and offers are subject to change without notice. Customers must log in to reach the online store using their Duke Energy Progress account number or phone number and the last four digits of their Social Security number to authenticate their eligibility. Duke Energy Progress Savings Store is available to eligible Duke Energy Progress residential customers. Terms and Conditions: 1. Products must be installed at the premise address associated with the account number purchasing the products. 2. Products cannot be used under any circumstances. 3. Duke Energy Progress reserves the right to revise account levels and/or equipment eligibility at any time. 4. Duke Energy Progress and the third-party vendor/retailer have signed a confidentiality agreement to protect customer's personal information. 5. I agree to indemnify, hold harmless and release Duke Energy Progress and its affiliates from any actions or claims in respect to the installation, operation and disposal of equipment (and related materials) covered herein including liability from incidental or consequential damages. 6. Duke Energy Progress is not affiliated with the manufacturer or vendor, does not expressly or implicitly warrant the performance of installed purchased products and is not liable for any damage caused by the installation of these products or for any damage caused by the malfunction of the installed purchased products. Please direct all questions regarding a product to the applicable manufacturer. Any non-Duke Energy logo or trademark is owned by the respective manufacturer or its assignee. All rights reserved. Google, Google Nest Learning Thermostat and Google Nest Thermostat E are trademarks of Google LLC. Duke Energy, 260 South Tryon Street, Charlotte, NC 28202. ©2020 Duke Energy Corporation. 2020BSE DEP-8107 1/0/20

OFFICIAL COPY

Feb 23 2021

# Power Manager®

December – email follow-up to Online Savings Store purchasers of smart thermostats



### Enroll and get \$90.

Thank you for purchasing a smart thermostat from our Online Savings Store. Now, joy awaits! Get a \$90 e-gift card for successfully enrolling in our Power Manager® smart thermostat option. Plus, you'll receive a \$25 e-gift card each year you stay enrolled.

[ENROLL NOW](#)

Hurry, offer ends Dec. 31.

To learn more about how the program works, visit our [website](#) or email us at [support@powermanagertstat.com](mailto:support@powermanagertstat.com).

\*If you enroll before Dec. 31, 2020, you will receive a \$90 enrollment e-gift card. If you enroll on or after Jan. 1, 2021, you will receive a \$75 enrollment e-gift card.

Duke Energy does not approve or endorse any one device or vendor over another and is not responsible for vendors' services and products.

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# Power Manager®

## Power Manager Website Landing Page



### Power Manager

Get rewards.

Make a real difference in your community.

Power Manager\* is an easy way you can help reduce energy during periods of high demand. Plus, you'll get rewards each year you remain on the program. By participating you'll help preserve natural resources, delay the need for more power plants and keep energy costs lower for everyone.



### Enrollment Options

There are two options for you to consider. Review each and choose what works best for you.



AC Control Device >

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Smart Thermostat >

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# Small Business Energy Saver

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Feb 23 2021

## 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 Saver<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$27.1	\$15.3	56%
Program Cost	\$10.6	\$6.9	65%
MW	8.8	5.6	63%
MWH	50,048.1	30,611.7	61%
Units <sup>2</sup>	47,000,000	29,123,529	62%

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 2020, the Company and vendor experienced many difficulties as a result of the COVID-19 virus. In March the program was shut down due to the high-risk nature of sending employees from business to business to market the program and to complete the free energy audit. The Program could complete some customer requested work, but the Program was not allowed to complete any marketing. In June the program started a gradual reopening that continue through November when we were at 80% staff. The program was paused for one week following Thanksgiving and then shutdown for the year in mid-December.

Even with the shutdown, customers still showed interest in the Program. We experienced higher than plan participation per salesperson the Program could have in the field, but we also had customers unwilling to act due to the uncertainty of the market due to the impacts of COVID-19. As spread of the

## Small Business Energy Saver

COVID-19 virus starts to slowdown and the vaccine distribution increases the uncertainty in the marketplace is resolved and customers will be willing to move forward with projects.

The Company continues to administer a customer satisfaction survey to Program participants since the Program's launch in DEC. Customers continue to give the Program high scores and generating a positive view of the Company.

### 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

In 2020, the Company filed changes to the Program to add a new option called SmartPath™ and to add process measures. SmartPath™ is an addition to the existing Small Business Energy Saver tariff that was approved in 2020 and planned to be launched in the first half of 2021. SmartPath™ is designed to minimize financial barriers to customer participation by allowing customers above 180 kW finance and implement energy efficiency upgrades with little to no upfront out of pocket costs.

The new process measures will allow the Program to provide measures that will have more of an impact on the Company's winter peak and will continue the Program efforts to extend projects beyond just lighting. As the Program continues to mature, 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.

### 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

Evaluation activities commenced in late 2020, with an evaluation covering the period from January 2019 through June 2020. The evaluation will conduct virtual verification of measure installations and estimate energy and peak demand savings (both summer and winter) via engineering analysis. The evaluation will also assess the NTG ratio through the use of online customer surveys. In addition, the process evaluation will assess the strengths and weaknesses of current program processes and customer perceptions of the program.

# Small Business Energy Saver

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# Non-Residential Smart \$aver Prescriptive

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Feb 23 2021

## A. Description

The Non-Residential Smart \$aver<sup>®</sup>P 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 Expenses<sup>1</sup>

Non Residential Smart Saver Prescriptive<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020	Vintage 2020	% of
	As Filed	YTD December 31, 2020	Target
<b>NPV of Avoided Cost</b>	<b>\$93.8</b>	<b>\$80.6</b>	<b>86%</b>
<b>Program Cost</b>	<b>\$25.2</b>	<b>\$16.3</b>	<b>65%</b>
<b>MW</b>	<b>25.7</b>	<b>20.5</b>	<b>80%</b>
<b>MWH</b>	<b>143,520.9</b>	<b>121,307.4</b>	<b>85%</b>
<b>Units</b>	<b>3,860,140</b>	<b>7,078,961</b>	<b>183%</b>

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 2020 program trends are listed below.

- Customers continued to show interest in energy efficiency, however the program experienced a significant decline due to the negative effects that the COVID-19 pandemic had on business customers.
- Customers continued to utilize the midstream marketing channel by taking advantage of instant incentives through participating equipment distributors

<sup>1</sup> 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

- More applicants used the online application.
- Outreach continued to support Trade Allies working with the program, but largely pivoted to virtual and phone outreach instead of in-person meetings
- Marketing efforts were reduced due to the COVID-19 pandemic
- A dedicated team of representatives responded to customer questions via phone and email, providing high levels of customer service.

Customers have several options for participating in the Program. The following chart summarizes 2020 participating customers by Program channel:

Program Option	Participating Customers*	% 2020 YTD Repeat Customer
Paper and Online Application Form	711	58%
Midstream Marketing Channel	1,427	55%
Online Energy Savings Store	741	62%
Multifamily Free Channel	7	5%

\*May include multiple facilities/sites for one customer.

\*\*The Multifamily Free Channel was suspended for the majority of 2020 due to COVID-19

### PAPER AND ONLINE APPLICATIONS

During 2020, the Company paid incentives for 1,601 applications, consisting of 4,086 measures. Paid application volume was down 34% in 2020 vs. 2019. During 2020, 70% of applications were submitted via the online application portal, which is a slight increase vs. 2019. The average payment per paid application was \$3,929.

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 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 2020, approximately 49% of total Smart \$aver Prescriptive incentives were paid through the midstream marketing channel. Duke Energy currently has 300 distributors signed up for the midstream channel, an increase of 10% from 2019.

### 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

## Non-Residential Smart \$aver Prescriptive

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incentive in the form of a reduced purchase price. The incentives offered in the online store are consistent with current program incentive levels.

### 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 was suspended along with the Residential Multifamily Direct Install program for the majority of 2020 due to COVID-19.

### 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. Most in-person Trade Ally outreach activities were suspended in 2020, however the Smart \$aver® outreach team continued to provide support to Trade Allies virtually and via phone & email correspondence.

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

The primary issues that faced the program in 2020 were all related to responding and adapting to the new reality after the onset of the COVID-19 pandemic in late first quarter. Program participation experienced a sharp decline in April and slowly recovered through the remainder of the year. Fortunately, very few program activities require face-to-face contact, so the Smart \$aver® team was able to continue processing incentive applications and administering the program while working from home.

### 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.

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 promoting a similar Upstream offer with manufacturers for existing food service and HVAC technologies only.

## Non-Residential Smart \$aver Prescriptive

### E. Marketing Strategy

Program marketing efforts were greatly reduced in 2020 in response to the COVID-19 pandemic and the need for Duke Energy marketing to focus first on more relevant and appropriate messaging to customers regarding pandemic-related assistance.

The marketing plan for 2021 includes direct marketing such as email and direct mail, online marketing, print marketing and supporting partnerships.

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. 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.

### 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. The final report was completed in July 2020.

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

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

### G. Appendix

Non Residential Smart Saver Energy Efficient HVAC Products<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$2.0	\$7.4	370%
Program Cost	\$1.4	\$2.5	180%
MW	0.8	1.7	222%
MWH	2,546.7	9,270.8	364%
Units	2,537,729	4,349,144	171%

1) Values are reflected at the system level.

## Non-Residential Smart \$aver Prescriptive

### Non Residential Smart Saver Energy Efficient Lighting Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$87.2</b>	<b>\$72.0</b>	<b>83%</b>
<b>Program Cost</b>	<b>\$21.5</b>	<b>\$13.1</b>	<b>61%</b>
<b>MW</b>	<b>23.9</b>	<b>18.4</b>	<b>77%</b>
<b>MWH</b>	<b>131,137.4</b>	<b>109,554.3</b>	<b>84%</b>
<b>Units</b>	<b>1,299,824</b>	<b>2,726,149</b>	<b>210%</b>

1) Values are reflected at the system level.

### Non Residential Smart Saver Energy Efficient Food Service Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$1.9</b>	<b>\$0.2</b>	<b>12%</b>
<b>Program Cost</b>	<b>\$1.4</b>	<b>\$0.5</b>	<b>37%</b>
<b>MW</b>	<b>0.3</b>	<b>0.0</b>	<b>12%</b>
<b>MWH</b>	<b>4,363.0</b>	<b>502.9</b>	<b>12%</b>
<b>Units</b>	<b>9,091</b>	<b>1,430</b>	<b>16%</b>

1) Values are reflected at the system level.

### Non Residential Energy Efficient Pumps and Drives Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$2.3</b>	<b>\$0.8</b>	<b>33%</b>
<b>Program Cost</b>	<b>\$0.7</b>	<b>\$0.2</b>	<b>26%</b>
<b>MW</b>	<b>0.7</b>	<b>0.2</b>	<b>31%</b>
<b>MWH</b>	<b>4,603.2</b>	<b>1,402.4</b>	<b>30%</b>
<b>Units</b>	<b>4,102</b>	<b>1,172</b>	<b>29%</b>

1) Values are reflected at the system level.

### Non Residential Energy Efficient ITEE<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>4%</b>
<b>Program Cost</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>21%</b>
<b>MW</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>
<b>MWH</b>	<b>323.5</b>	<b>9.9</b>	<b>3%</b>
<b>Units</b>	<b>5,135</b>	<b>118</b>	<b>2%</b>

1) Values are reflected at the system level.

### Non Residential Energy Efficient Process Equipment Products<sup>1</sup>

<i><u>\$ in millions, rounded</u></i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$0.3</b>	<b>\$0.2</b>	<b>68%</b>
<b>Program Cost</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>17%</b>
<b>MW</b>	<b>0.1</b>	<b>0.2</b>	<b>241%</b>
<b>MWH</b>	<b>547.1</b>	<b>567.1</b>	<b>104%</b>
<b>Units</b>	<b>4,260</b>	<b>948</b>	<b>22%</b>

1) Values are reflected at the system level.

## Non-Residential Smart Saver® Custom Assessment

### 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 a professional engineering firm pre-selected and contracted by the Company. The current engineering is Willdan.

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 has a fixed cost of \$5,000 which is covered 100% by the program. In 2020, the program was expanded to include buildings with process loads such as manufacturers. Program parameters are a focus on customers with a minimum demand of 180 kW with those below being serviced by Small Business Energy Saver®. The goal of the program is to perform 30-50 assessments annually.

### 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 Assessments<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020	Vintage 2020	% of
	As Filed	YTD December 31, 2020	Target
<b>NPV of Avoided Cost</b>	<b>\$4.1</b>	<b>\$0.5</b>	<b>13%</b>
<b>Program Cost</b>	<b>\$1.4</b>	<b>\$0.3</b>	<b>23%</b>
<b>MW</b>	<b>0.9</b>	<b>0.1</b>	<b>8%</b>
<b>MWH</b>	<b>7,950.2</b>	<b>1,413.8</b>	<b>18%</b>
<b>Units</b>	<b>5,064</b>	<b>5</b>	<b>0%</b>

1) Values are reflected at the system level.

### D. Qualitative Analysis

#### Highlights

Participation in 2020 included 59 customers completing an application for an energy assessment. Of these, 33 assessments were completed while 13 customers thus far have selected projects to pursue resulting in a Smart Saver Custom application.

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

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### **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 2020.

## Non-Residential Smart \$aver® Custom

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### 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 Custom<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$34.7</b>	<b>\$15.9</b>	<b>46%</b>
<b>Program Cost</b>	<b>\$10.8</b>	<b>\$5.8</b>	<b>54%</b>
<b>MW</b>	<b>7.7</b>	<b>4.8</b>	<b>62%</b>
<b>MWH</b>	<b>67,082.3</b>	<b>21,156.7</b>	<b>32%</b>
<b>Units</b>	<b>45,866</b>	<b>10,153</b>	<b>22%</b>

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 2020, 166 new pre-approval applications were submitted, of which 71 were new construction projects. Additionally, 97 projects were enrolled in new construction which precedes a Smart Saver Custom application.

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.

#### 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 20 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

## Non-Residential Smart \$aver® Custom

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opportunities. The custom program is actively working with internal resources (large account managers 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

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

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

## Non-Residential Smart \$aver® Performance Incentive

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### 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.

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

## Non-Residential Smart \$aver® Performance Incentive

### Non Residential Smart Saver Performance Incentive<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$11.8</b>	<b>\$2.0</b>	<b>17%</b>
<b>Program Cost</b>	<b>\$3.8</b>	<b>\$0.8</b>	<b>20%</b>
<b>MW</b>	<b>2.8</b>	<b>0.2</b>	<b>8%</b>
<b>MWH</b>	<b>22,097.8</b>	<b>5,961.3</b>	<b>27%</b>
<b>Units</b>	<b>26,334,797</b>	<b>67</b>	<b>0%</b>

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 2020 the program received 12 new applications.

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.
- 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-

## Non-Residential Smart \$aver® Performance Incentive

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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.

### F. Evaluation, Measurement and Verification

No evaluation activities occurred in 2020. Future evaluation timing will depend upon sufficient participation.

# EnergyWise Business

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Feb 23 2021

## 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 Business<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed <sup>3</sup>	Vintage 2020 YTD December 31, 2020	% of Target
<b>NPV of Avoided Cost</b>	<b>\$3.5</b>	<b>\$2.1</b>	<b>62%</b>
<b>Program Cost</b>	<b>\$5.1</b>	<b>\$2.9</b>	<b>58%</b>
<b>MW</b>	<b>17.4</b>	<b>11.8</b>	<b>68%</b>
<b>MWH</b>	<b>2,557.6</b>	<b>1,297.2</b>	<b>51%</b>
<b>Units<sup>2</sup></b>	<b>20,180</b>	<b>13,084</b>	<b>65%</b>

1) Values are reflected at the system level.

2) Units represent average monthly kW at meter for demand response measures (10,694), plus individual participants for smart thermostat energy efficiency measure (2,390).

3) As filed values not included as program was not included in filing.

## D. Qualitative Analysis

### Highlights

During 2020, the Program was significantly impacted by shutdowns due to COVID-19. The program was shutdown completely from the end of March until June 15<sup>th</sup>, 2020. The program closed again for one week in November and the last two weeks of December. The shutdown time plus the removal of no longer active devices the result is the Program shrunk by 733 devices reducing the total installed devices in DEC to 12,152.

The door-to-door marketing (canvassing) used by the program was considered a high-risk activity. The program delayed restarting due to the risk. Once it was restarted, the Program used a phased approach to test safety protocols and use of PPE to keep everyone safe. The program only returned to 75% of the preCOVID levels.

### 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 70% of customers are participating in this option. This is a slight improvement from the 74% participation in the 30% cycling option seen at the end of 2019. 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

With the program struggling with cost effectiveness, and the change in DEC from a summer peaking utility to mostly winter peaking, the program is going to move to a maintenance mode. We have negotiated price reductions with our vendor that will improve the cost effectiveness and allow the program to maintain its current capacity levels.

## E. Marketing Strategy

In 2020 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

The evaluation for the Smart Thermostat (EE) measure for the period of January 2018 – February 2019 was completed in February 2021. Impacts for the demand response portion (Summer 2021) for the program has subsequently begun with a final DR report scheduled for 2<sup>nd</sup> Quarter 2022.

**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**PowerShare<sup>1</sup>

<i>\$ in millions, rounded</i>	Vintage 2020 As Filed	Vintage 2020 YTD December 31, 2020	% of Target
NPV of Avoided Cost	\$43.2	\$34.9	81%
Program Cost	\$13.6	\$12.1	89%
MW <sup>2</sup>	342.6	276.6	81%
MWH	0.0	N/A	-
Units <sup>3</sup>	322,565	260,390	81%

**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 2020, we had the ability to shed 276.6 MW (at the plant), representing 81% of the as filed capacity.
- 3) Units included in filing represented average 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. PowerShare added more than 31MW of capability by March 2020, but those gains were offset in subsequent months by a significant reduction in participant loads due to COVID-19 impacts. Although the Company anticipates that most of those loads will recover in 2021, there is uncertainty as to whether they will return to pre-COVID levels.

There were no PowerShare curtailment events in 2020.

**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**

Planning for the PY 2020/2021 evaluation began late 2020. The evaluation will estimate verified demand (kW) impacts using a baseline testing approach (including regression-based and customer baseline, or, CBL) for the period June 1, 2020 through May 31, 2021. These impacts will include:

- a. Average kW demand impact per customer for each event, and on average across all events
- b. Total program kW demand impact for each event, and on average across all events

Note this evaluation is subject to events occurring during this time period. Guidehouse did not perform an evaluation for the 2019-2020 season, since no events occurred.

Duke Energy Carolinas, LLC  
 Estimate - January 1, 2022 - December 31, 2022  
 Docket Number E-7, Sub 1249  
 Projected Program/Portfolio Cost Effectiveness - Vintage 2022

Program	UCT	TRC	RIM	PCT
<b>Residential Programs</b>				
• Energy Education Program for Schools	1.39	1.40	0.54	8.64
• Energy Efficient Appliances & Devices	2.27	1.70	0.54	4.32
• Residential – Smart \$aver Energy Efficiency Program	1.02	0.80	0.57	1.56
• Income-Qualified EE Products & Services	0.75	0.75	0.46	2.05
• Multi-Family EE Products & Services	3.11	5.29	0.68	24.02
• My Home Energy Report	1.88	1.88	0.63	
• Power Manager	4.26	8.99	4.26	
• Residential Energy Assessments	1.45	1.40	0.49	20.34
<b>Residential Total</b>	<b>2.40</b>	<b>2.55</b>	<b>0.95</b>	<b>5.08</b>
<b>Non-Residential Programs</b>				
• Custom Assessment & Incentive	2.77	1.09	0.84	1.94
• EnergyWise for Business	0.46	1.38	0.46	
• Food Service Products	2.44	0.61	0.65	1.29
• HVAC	3.04	1.94	0.61	4.39
• Lighting	3.80	2.11	0.79	4.04
• Motors, Pumps & VFDs	3.02	2.16	0.74	4.71
• Non Res Information Technology	0.68	0.75	0.33	5.39
• Process Equipment	2.37	1.85	0.72	3.79
• Performance Incentive	1.74	1.04	0.69	2.05
• Small Business Energy Saver	3.04	1.73	0.82	3.06
• PowerShare	3.40	105.69	3.40	
<b>Non-Residential Total</b>	<b>3.13</b>	<b>2.06</b>	<b>0.90</b>	<b>3.36</b>
<b>Overall Portfolio Total</b>	<b>2.79</b>	<b>2.23</b>	<b>0.92</b>	<b>3.84</b>



Duke Energy Carolinas  
 Changes to DSM/EE Cost Recovery Vintage 2020 True Up January 1, 2020 - December 31, 2020  
 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

Program Name	Filed in Docket E-7, Sub 1192		Filed in Docket E-7, Sub 1249		Overall Variance		E-7 Sub 1192	E-7 Sub 1249	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	7,034,771	1,652	3,380,325	424	(3,654,446)	(1,228)	32,950	12,479	(20,471)	(4,370,509)	(1,026)	-	-	716,063	(202)	(3,654,446)	(1,228)
Energy Efficient Appliances and Devices	48,945,880	11,244	111,202,880	15,786	62,256,999	4,542	1,713,362	5,311,571	3,598,209	57,014,754	7,819	3,190,951	904	2,051,294	(4,181)	62,256,999	4,542
Residential – Smart Saver Energy Efficiency Program	8,689,809	2,458	7,689,428	2,190	(1,180,381)	(268)	28,894	27,153	(1,741)	(1,180,381)	(268)	-	-	0	0	(1,180,381)	(268)
Income Qualified Energy Efficiency and Weatherization Assistance	4,245,993	653	2,166,300	244	(2,079,693)	(409)	10,406	2,255	(8,151)	(2,648,251)	(466)	-	-	568,558	57	(2,079,693)	(409)
Multi-Family Energy Efficiency	20,180,190	2,146	4,042,084	522	(16,138,106)	(1,624)	368,226	98,419	(269,807)	(15,353,462)	(1,610)	14,749	2	(799,393)	(17)	(16,138,106)	(1,624)
Energy Assessments	6,119,618	725	7,891,628	944	1,772,010	220	20,667	64,125	43,458	870,208	102	901,802	118	-	-	1,772,010	220
My Home Energy Report	306,337,865	77,745	332,105,411	92,401	25,767,546	14,656	1,355,300	1,358,892	3,592	1,832,519	462	-	-	23,935,027	14,194	25,767,546	14,656
PowerManager	-	616,237	-	593,227	-	(23,011)	580,159	558,495	(21,663)	-	-	-	25,028	-	-	(23,011)	-
<b>Residential Programs Total</b>	<b>401,734,126</b>	<b>712,860</b>	<b>468,478,054</b>	<b>705,737</b>	<b>66,743,928</b>	<b>(7,123)</b>	<b>4,115,415</b>	<b>7,433,389</b>	<b>3,317,975</b>	<b>36,164,877</b>	<b>(43,025)</b>	<b>4,107,502</b>	<b>26,052</b>	<b>26,471,549</b>	<b>9,851</b>	<b>66,743,928</b>	<b>(7,123)</b>

Non-Residential Programs

Program Name	Filed in Docket E-7, Sub 1192		Filed in Docket E-7, Sub 1249		Overall Variance		E-7 Sub 1192	E-7 Sub 1249	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	7,950,216	908	1,413,836	76	(6,536,379)	(831)	5,064	5	(5,059)	-	-	(6,536,379)	(831)	-	-	(6,536,379)	(831)
Non Residential Smart Saver Custom	67,082,262	7,658	21,156,703	4,785	(45,925,559)	(2,873)	45,866	10,153	(35,713)	-	-	(45,925,559)	(2,873)	-	-	(45,925,559)	(2,873)
Non Residential Smart Saver Energy Efficient Food Service Products	4,363,034	288	502,870	35	(3,860,164)	(252)	9,091	1,430	(7,661)	(2,850,954)	(161)	(1,048,848)	(91)	39,638	(1)	(3,860,164)	(252)
Non Residential Smart Saver Energy Efficient HVAC Products	2,346,698	756	9,270,812	1,662	6,924,115	925	2,537,729	4,349,144	1,811,415	499,676	222	5,204,718	416	1,019,721	288	6,724,115	925
Non Residential Smart Saver Energy Efficient Lighting Products	131,137,431	23,878	109,554,291	18,364	(21,583,139)	(5,514)	1,299,824	2,726,149	1,426,325	(43,422,800)	(8,179)	16,654,297	2,412	5,185,363	253	(21,583,139)	(5,514)
Non Residential Energy Efficient Pumps and Drives Products	4,603,201	730	1,402,429	225	(3,200,772)	(505)	4,102	1,172	(2,930)	(3,558,030)	(551)	31,604	(9)	325,653	54	(3,200,772)	(505)
Non Residential Energy Efficient ITEE	323,520	-	9,917	-	(313,603)	-	5,135	118	(5,017)	(316,086)	-	-	-	2,483	-	(313,603)	-
Non Residential Energy Efficient Process Equipment Products	547,055	85	567,122	206	20,067	121	4,260	948	(3,312)	(236,168)	(36)	231,761	153	24,474	4	20,067	121
Non Residential Smart Saver Performance Incentive	22,097,800	2,797	5,961,326	223	(16,136,474)	(2,574)	26,334,797	67	(26,334,730)	-	-	(16,136,474)	(2,574)	-	-	(16,136,474)	(2,574)
Smart Energy in Offices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small Business Energy Saver	50,048,128	8,756	30,611,745	5,560	(19,436,382)	(3,196)	47,000,000	29,123,529	(17,876,471)	(19,692,802)	(3,196)	-	-	256,420	0	(19,436,382)	(3,196)
Business Energy Report	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EnergyWise for Business	2,557,590	17,397	1,297,238	11,791	(1,260,351)	(5,606)	20,180	13,084	(7,096)	(1,260,351)	(5,910)	-	-	-	304	(1,260,351)	(5,606)
PowerShare	-	-	-	-	-	-	322,565	260,390	(62,175)	-	-	-	-	(66,042)	-	-	(66,042)
<b>Non-Residential Programs Total</b>	<b>293,256,933</b>	<b>405,879</b>	<b>181,748,291</b>	<b>319,530</b>	<b>(111,508,643)</b>	<b>(86,348)</b>	<b>77,588,613</b>	<b>36,486,189</b>	<b>(41,102,424)</b>	<b>(70,837,516)</b>	<b>(17,811)</b>	<b>(47,524,880)</b>	<b>(69,439)</b>	<b>6,853,753</b>	<b>902</b>	<b>(111,508,643)</b>	<b>(86,348)</b>
<b>Total Residential and Non-Residential Programs</b>	<b>694,991,059</b>	<b>1,118,739</b>	<b>650,226,345</b>	<b>1,025,268</b>	<b>(44,764,714)</b>	<b>(93,471)</b>	<b>81,704,028</b>	<b>43,919,579</b>	<b>(37,784,449)</b>	<b>(34,672,639)</b>	<b>(60,837)</b>	<b>(43,417,377)</b>	<b>(43,387)</b>	<b>33,325,302</b>	<b>10,753</b>	<b>(44,764,714)</b>	<b>(93,471)</b>

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

Program Name As Filed	Docket	Report Reference	Effective Date
Energy Efficient Appliances and Devices	E-7, Sub 1249	Save Energy and Water Kits 2018 – 2019 Evaluation Report	9/1/2019
Multi-Family Energy Efficiency Program	E-7, Sub 1249	EM&V Report for the Duke Energy Multifamily Energy Efficiency Program	6/1/2018 (Water); 7/1/19 (Lighting)
Non-Residential Smart Saver Program	E-7, Sub 1249	Duke Energy Carolinas and Duke Energy Progress Non-Residential Smart Saver Prescriptive Program Evaluation Report	8/1/2019

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**Duke Energy Carolinas, LLC**  
**List of Industrial and Commercial Customers Opted Out of Vintage 2020**  
**Docket E-7, Sub 1249**

	Number of Accounts		
<b>DSM RIDER OPT OUT YR 2020</b>		<b>5,654</b>	
<b>EE RIDER OPT OUT YR 2020</b>		<b>5,154</b>	
<b>Customer Bill Name</b>	<b>DSM YR 20 (JAN 1 - DEC 31) RIDER OPT OUT</b>	<b>EE YR 20 (JAN 1 - DEC 31) RIDER OPT OUT</b>	<b>GRAND TOTAL</b>
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	2
638 BREWING CO, INC	2	2	4
800 GREEN VALLEY ASSOCIATES LLC	1	1	2
A & T STATE UNIV	12	9	21
A W NORTH CAROLINA INC	6	6	12
ABB MOTORS AND MECHANICAL INC	5	5	10
ABCO AUTOMATION INC	1	1	2
ABERCROMBIE TEXTILES LLC		1	1
ABSS FACILITIES DEPT	7	7	14
ACUCOTE INC	3	3	6
ADVANCE STORES CO	1	1	2
ADVANCED DRAINAGE SYSTEMS	2	2	4
ADVANCED MACHINE & FABRICATION, INC.	2	2	4
ADVANCED TECHNOLOGY	2	1	3
AE & T COMPANY INC	1	1	2
AEP INDUSTRIES INC	2	2	4
AERO ACCESSORIES INC	2	2	4
AERODYN WIND TUNNEL LLC	1	1	2
AFRO AMERICAN CULTUR	1	1	2
AIR PRODUCTS & CHEMICALS, INC	1	1	2
AIRGAS USA LLC		1	1
AKZO NOBEL SURFACE CHEMISTRY LLC	9	9	18
ALADDIN MANUFACTURING CORPORATION		2	2
ALAMANCE COMMUNITY COLLEGE	8	4	12
ALAMANCE EXTENDED CARE, INC	1	1	2
ALAMANCE FOODS INC		5	5
ALAMANCE REGIONAL MEDICAL CENTER	2	2	4
ALBEMARLE U. S., INC	1	1	2
ALBEMARLE U. S., INC	1	1	2
ALCAN PACKAGING FOOD AND TOBACCO,INC	2	2	4
ALDERSGATE	10	9	19
ALDI (NC ) LLC	2	2	4
ALEXANDER COUNTY SCHOOLS	2	2	4
ALEXANDRIA REAL ESTATE EQUITIES INC	7	7	14
ALL GRANITE INC	3	3	6
ALLIANCE ONE INTERNATIONAL	2	2	4
ALLIED DIE CASTING CO OF NC	2	2	4
ALLOYWORKS, LLC		5	5
ALTEC INDUSTRIES INC	3	3	6
AMAZON FULFILLMENT SERVICES, INC	1	1	2

AMAZON.COM SERVICES, INC.	4	4	8
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 COMPAN	1	1	2
AMERICAN FIBER & FINISHING	1	1	2
AMERICAN HEBREW ACADEMY	12	12	24
AMERICAN MULTI CINEMA INC	6	6	12
AMERICAN ROLLER BEARING CO	4	4	8
AMERICAN TOBACCO HH LLC	6	6	12
AMERICAN TOBACCO POWER HOUSE LLC	2	2	4
AMERICAN YARNS LLC	4	4	8
AMERICAN ZINC PRODUCTS LLC	1	1	2
AMSTAR SUGAR CORP	1	1	2
ANDALE INC	1	1	2
APPLE INC	2	2	4
AQUA PLASTICS INC	2	2	4
ARBOR ACRES UNITED METHODIST RETIREMENT COMM	10	9	19
ARCHER-DANIELS-MIDLAND CO	3	3	6
ARDAGH METAL BEVERAGE USA, INC	2	2	4
ARE-NC REGION NO 11, LLC	2	2	4
ARJOBEX AMERICA	2	2	4
ARMACELL LLC	8	8	16
ARROW INTERNATIONAL INC	2	2	4
ASHLEY FURNITURE INDUSTRIES INC	13	13	26
ASSOCIATED HEALTH SERVICES INC	2	2	4
AT&T BELLSOUTH	3	3	6
AT&T MOBILITY LLC	3	3	6
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) MANUFACTURIN	1	1	2
AVDEL USA LLC	1	1	2
AVISTA PHARMA SOLUTIONS	4	3	7
B & E WOODTURNING INC	1	1	2
B & W FIBERGLASS	1	1	2
B V HEDRICK GRAVEL & SAND COMPANY	9	9	18
B&G FOODS SNACKS, INC	1	1	2
B/E AEROSPACE, INC	12	16	28
BAKER INTERIORS FURNITURE COMPANY	5	8	13
BAKERY FEEDS INC	2	2	4
BANK NOTE CORP	3	3	6
BANK OF AMERICA	4	2	6
BARNHARDT MANUFACTURING COMPANY INC	7	7	14
BARRDAY CORP	4	4	8
BARTIMAEUS BY DESIGN INC	3	3	6
BARTLETT MILLING CO	1		1

BASF AGRICULTURAL SOLUTIONS SEED US LLC	10	10	20
BASF CORPORATION	4	4	8
BAY STATE MILLING	5	5	10
BB&T	10	10	20
BEAL MANUFACTURING CORP	1	1	2
BEASLEY FLOORING PRODUCTS INC	2	2	4
BECO MANAGEMENT	2	2	4
BED,BATH & BEYOND	2	2	4
BEKAERT TEXTILES USA	4	4	8
BELK	7	7	14
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, LLC	5	5	10
BESTREADS INC	2	2	4
BEVERLY KNITS INC	6	6	12
BIC CORPORATION	5	5	10
BILLY GRAHAM EVANGELISTIC	6	6	12
BI-LO, LLC	11	11	22
BIOMERIEUX, INC	4	4	8
BISHOP MCGUINNESS CATHOLIC HIGH SCHOOL	3	3	6
BISSELL COMPANIES	15	2	17
BJ'S WHOLESALE CLUB	3	3	6
BLACKSTONE CHARLOTTE, LLC	2	2	4
BLOW MOLDED SOLUTIONS LLC		2	2
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	26	26	52
BRF-A1,LLC	1	1	2
BRI 1875 MERIDIAN, LLC	9	9	18
BRI 1881 INNOVATION PARK LLC	2	2	4
BRIDGESTONE AIRCRAFT TIRE USA INC	4	4	8
BRIGHT ENTERPRISES INC	2	2	4
BRIT-CHARLOTTE HOLDING LLC	1	1	2
BROAD RIVER WATER AUTHORITY	1		1
BSN MEDICAL INC	1		1
BUCKEYE FIRE EQUIPMENT COMPANY	4	4	8
BUD ANTLE, INC	1	1	2
BURKE COUNTY SCHOOLS	27	18	45
BURLINGTON COAT FACTORY	2	1	3

BURLINGTON TECHNOLOGIES INC	1	1	2
C P EAKES CO	1	1	2
CABARRUS COUNTY SCHOOLS	62	62	124
CALHOUN,DANIEL	3	3	6
CALICO TECHNOLOGIES INC	3	3	6
CAMBRIDGE ACQUISITIONS LLC	1	1	2
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	8	8	16
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
CARLIE C'S IGA OF MINERAL SPRINGS	1	1	2
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	2
CAROLINA PERLITE CO	1	1	2
CAROLINA PRECISION COMPONENTS, INC.	1	1	2
CAROLINA PRECISION PLASTICS LLC	7	7	14
CAROLINA STALITE CO	10	10	20
CAROLINA SUNROCK CORP	10	10	20
CAROLINA TRACTOR & EQUIPMENT COMPANY	5	5	10
CAROLINA VILLAGE	2	2	4
CAROLINA YARN	2	2	4
CAROLINAS HEALTHCARE SYSTEM	33	27	60
CAROMONT MEDICAL GROUP	1	1	2
CARPENTER COMPANY	5	5	10
CARRIER CORPORATION	2	2	4
CASCADE DIE CASTING GRP INC		3	3
CASE FARMS	3	3	6
CASTLE & COOKE NORTH CAROLINA LLC	4	4	8
CATAWBA COLLEGE	2		2
CATAWBA COUNTY SCHOOLS	23	17	40
CATAWBA VALLEY MEDICAL CENTER	1	1	2
CATO CORP	2	2	4
CBL ASSOCIATES MANAGEMENT, INC	1	1	2
CBP RESOURCES	4	4	8
CCBCC OPERATIONS, LLC	5	5	10
CCC DEVELOPMENT PARTNERS, LLC	1	1	2

CCL LABEL INC		1	1
CDP DURHAM CENTER INVESTORS LLC	1	1	2
CEDAR FAIR SOUTHWEST, INC	3	3	6
CELGARD, LLC	3	1	4
CELLCO PARTNERSHIP	1	1	2
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	6	13	19
CERTAINTED CORP	1	3	4
CHAPEL HILL/ CARRBORO SCHO	52		52
CHARLOTTE COLOCATION CENTER LLC	1	1	2
CHARLOTTE COUNTRY DAY SCHOOL	9	2	11
CHARLOTTE DOUGLAS INTERNATIONAL AIRPORT	1		1
CHARLOTTE GATEWAY VILLAGE	2		2
CHARLOTTE LATIN SCHOOLS, INC	10	10	20
CHARLOTTE OBSERVER PUBLISHING COMPANY	2	2	4
CHARLOTTE PIPE & FOUNDRY	13	13	26
CHARTER COMMUNICATIONS	2	2	4
CHEMICAL SPECIALTIES	5	5	10
CHEROKEE BOYS CLUB	3	3	6
CHESAPEAKE TREATMENT COMPANY, LLC	1	1	2
CHICOPEE, INC	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	96	111	207
CITY OF CHARLOTTE REGIONAL VISITORS AUTHORITY	6	6	12
CITY OF DURHAM	9	9	18
CITY OF EDEN		2	2
CITY OF GASTONIA	3	3	6
CITY OF GRAHAM	2	2	4
CITY OF GREENSBORO	25	27	52
CITY OF HENDERSONVILLE	4	5	9
CITY OF HICKORY	4	4	8
CITY OF KANNAPOLIS		1	1
CITY OF LENOIR	6	4	10
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
CKS PACKAGING INC	4	4	8
CLAPPS NURSING HOME CENTER	1	1	2
CLARIANT CORPORATION	20	20	40
CLEARLIGHT GLASS AND MIRROR	2	2	4
CLEARWATER PAPER CORPORATION	5	5	10
CLEMENT PAPPAS NC, INC	4	3	7
CLEVELAND COUNTY FAMILY YOUNG MENS CHRISTIAN A	2	2	4
CLEVELAND COUNTY SCHOOLS	55	52	107
CMBE	177	8	185
CMC-NORTHEAST INC	8		8

CMHA	14	13	27
COATS AMERICAN	2	2	4
COATS HP INC	2	2	4
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
COMPAERO	1	1	2
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
CONSENSUS PROTOCOL LLC	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
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	6	5	11
COUSINS PROP INC	1	1	2
COUSINS PROPERTIES LP	6	6	12
CPCC	46	41	87
CRAFT REVOLUTION LLC	1	1	2
CREDIT SUISSE SECURITIES (USA) LLC	1	1	2
CREDIT SUISSE SECURITIES(USA) LLC CENTER OF EXCELLE	1	1	2
CREE INC	10	10	20
CRONLAND LUMBER CO	1	1	2
CROWN CONVERTING	4	4	8
CS CAROLINA INC	3	3	6
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	3	3	6
CYRUSONE-NC LLC	3	3	6
DAIMLER TRUCKS NORTH AMERICA, LLC	5	5	10
DAIRY FRESH	3	3	6
DALCO NONWOVENS, LLC	2	2	4
DANNY TERRELL	2	2	4
DART CONTAINER CORPORATION OF GEORGIA	3	3	6
DATACHAMBERS, 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
DC CHARLOTTE PLAZA LLLP	1	1	2
DC74 LLC	3	3	6
DE FEET INTERNATIONA	4	4	8

DEBOTECH INC	1	1	2
DEERE HITACHI CONST MACH	11	11	22
DELTA PHOENIX, INC.	1	1	2
DFA DAIRY BRANDS FLUID, LLC	2	2	4
DFA DAIRY BRANDS FLUIDS, LLC	1	1	2
DHOLLANDIA US, LLC	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	2	2	4
DOUGHTON MFG CO	3	3	6
DOW CORNING CORP		8	8
DUKE UNIVERSITY	12	12	24
DUKE UNIVERSITY HEALTH SYSTEM INC	6	6	12
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	105		105
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
EARTH FARE INC	6	6	12
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 AEROQUIP INC	1	1	2
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	4	5	9
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	12
ESSENTRA PACKAGING US, INC	1	5	6
ETHAN ALLEN OPERATIONS INC	2	2	4
EUROPA CENTER LLC	1	1	2
EVANS,JAMES R	1	1	2
EWE WAREHOUSE INVESTMENTS XXXIII LTD	5	5	10
FAIRFIELD CHAIR CO	6	6	12
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	2
FEDEX GROUND PACKAGE SYS INC	3	2	5
FERGUSON SUPPLY & BOX	1		1
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	3	3	6
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
FLETCHER HOSPITAL, INC.	8	9	17
FLEXENTIAL CORP	2	2	4
FLOW PROPERTIES	1	1	2
FLOWERS BAKING COMPANY	1	1	2
FLYNT AMTEX INC	1	1	2
FMC LITHIUM USA CORP	1	1	2
FOCKE & CO, INC	1	1	2
FOOD LION	224	211	435
FORBO MOVEMENT SYSTEMS	1		1
FORESTVIEW HIGH SCHOOL PTA	1		1
FORSYTH TECHNICAL COLLEGE	10	7	17
FOSS AUTO RECYCLING INC	5	5	10
FREUDENBERG PERFORMANCE MATERIALS LP	3	3	6
FRIENDLIEST HOTEL, LLC	1	1	2
FRITO-LAY, INC	1	1	2
FRONTIER COMMUNICATIONS CORPORATE SERVICES, IN	14	14	28
FRONTIER YARNS, INC		4	4
FRYE REGIONAL MEDICAL CENTER	10	10	20
FUJITSU AMERICA INC	1	1	2
FULLSTEAM BREWERY, LLC	1		1
FUNDER AMERICA INC	5	5	10
FURNITURELAND SOUTH	8	8	16
GALENOR DESIGNS, LLC	1	1	2
GALVAN INDUSTRIES INC	7	7	14
GARDNER WEBB UNIV	1	1	2
GASTON CO SCHOOLS	39	37	76
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
GENERIC BIDCO II, LLC	5	5	10
GENPAK LLC	5	6	11
GENUINE PARTS COMPANY	3		3
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	1	1	2
GIGA DATA CENTER - 1 LLC	1	1	2
GILBARCO INC	1		1
GILDAN ACTIVEWEAR (EDEN) INC	4	2	6
GILDAN YARNS, LLC		1	1
GILKEY LUMBER CO INC	7	7	14
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	2
GRASS AMERICA INC	4	4	8
GRAY MANUFACTURING TECHNOLOGIES LLC	2	2	4
GREENE STREET HOLDINGS	2	2	4
GREENEST HOTEL LLC	1	1	2
GREENSBORO COLLEGE	15	4	19
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	233	469
GUILFORD TECH COMM COLL	16	16	32
H ALVIS FAUST	2	2	4
H B D INC	1	1	2
HAECO CABIN SOLUTIONS	9	9	18
HAN FENG INC		1	1
HANCOCK & MOORE, LLC		6	6
HANES COMPANIES INC	2	3	5
HANES DYE & FINISHING	1	1	2
HANWHA ADVANCED MATERIALS AMERICA LLC	1	1	2
HARRIS TEETER INC	89	89	178
HASHMASTER TECH, LLC		1	1
HAYWARD INDUSTRIES, INC	3	3	6
HENDERSON COUNTY	5	5	10
HENDERSON COUNTY HOSPITAL CORP	7	7	14
HENDERSON COUNTY SCHOOLS	17	17	34
HENDERSONVILLE HEALTH & REHAB	1	1	2
HENKEL CORPORATION	6	6	12
HERBALIFE INTERNATIONAL OF AMERICA INC	1	1	2
HERRON TEST LAB INC	1	1	2
HICKORY CITY SCHOOLS	13	12	25
HICKORY PRINTING SOLUTIONS, LLC	2	2	4

HICKORY SPRINGS MANUFACTURING COMPANY	23	24	47
HIGH ASSOCIATES, LTD	2	2	4
HIGH COUNTRY LUMBER AND MULCH LLC		2	2
HIGH DEFINITION TOOL CORPORATION	1	1	2
HIGHWOODS REALTY LIMITED PARTNERSHIP	53	2	55
HIGHWOODS REALTY LTP	1		1
HILL HOSIERY MILLS	2	2	4
HISTORIC REVOLUTION LLC	3	3	6
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		1
IAC OLD FORT, LLC	4	4	8
IBM CORPORATION	6	7	13
IGM RESINS USA INC		1	1
IMAGE MARK BUSINESS SERVICES	1	1	2
IMAGES OF AMERICA	2	2	4
IMC-METALSAMERICA, LLC	1	1	2
IMERYS MICA KINGS MOUNTAIN INC	7	7	14
IMPERIAL HOTEL GROUP INC	3	3	6
INDEPENDENCE LUMBER COMPANY	3	3	6
INDEPENDENT BEVERAGE CORPORATION	4	4	8
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	7	7	14
INGLES MARKETS, INC.	65	65	130
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
INTERTECH CORP	2	2	4
IPEX USA, INC	2	1	3
IQE INC	2	2	4
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	7	7	14
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	2		2
JOWAT CORPORATION	8	8	16
JPS COMPOSITE MATERIALS CORP		1	1
KAYSER ROTH CORPORATION	2	2	4
KBI BIOPHARMA, INC	3	3	6
KBSIII CARILLON LLC	1	1	2
KEN SMITH YARN CO	1	1	2
KENDRION-SHELBY	1	1	2
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	3	3	6
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	54	54	108
KOURY VENTURES	5	5	10
KROGER CO	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	5	5	10
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	2
LAKE HICKORY COUNTRY CLUB	6	6	12
LANXESS CORP	1	3	4
LANXESS SOLUTIONS US INC		1	1
LASER INK CORPORATION	1		1
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 CEN	1	1	2
LIBERTY HARDWARE	3	3	6
LIBERTY HEALTHCARE PROPERTIES OF BALLANTYNE LLC	1	1	2
LIBERTY HEALTHCARE PROPERTIES OF MECKLENBURG CC	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

LINCOLN COMMUNITY HEALTH CENTER INC	2	2	4
LINDYS HOMEMADE, LLC	1	1	2
LOPAREX LLC	2	2	4
LOTUS BAKERIES US MANUFACTURING, LLC	1	1	2
LOUISIANA-PACIFIC CORPORATION	1	1	2
LOWES FOODS	41	41	82
LOWE'S HOME CENTERS, INC	90	70	160
LOWES OF FRANKLIN #717	3	2	5
LOWE'S OF FRANKLIN #717	1	1	2
LTF CONSTRUCTION COMPANY LLC	1	1	2
LUBRIZOL ADVANCED MATERIALS INC	3	3	6
LUTHERAN RETIREMENT MINISTRIES OF ALAMANCE CO	11	11	22
LYDALL THERMAL ACOUSTICAL INC	8	5	13
MACK CONSOLIDATED CENTER LLC	4	4	8
MAERSK INC	1	1	2
MAGNOLIA CASTLE LLC	1	1	2
MANN+HUMMEL FILTRATION TECHNOLOGY US LLC	2	2	4
MANNINGTON MILLS INC	1	1	2
MANNINGTON WOOD FLOORS	1		1
MANUAL WOODWORKERS & WEAVERS INC	2	2	4
MAPLE SPRINGS LAUNDRY INC	4	4	8
MARKET AMERICA	3	3	6
MARSH FURNITURE CO	4	4	8
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	2	4
MCCOMB INDUSTRIES LLLP	2	2	4
MCCREARY MODERN INC	8	1	9
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	1	7	8
MECK AREA CATH SCHLS		3	3
MECK CNTY JAIL CENTRAL	1		1
MECKLENBURG COUNTY	26	11	37
MEDI MFG INC	1	1	2
MEDICAGO USA, INC	2	2	4
MERCHANTS DISTRIBUTORS , LLC	1	1	2
MERCK SHARP & DOHME CORP	5	5	10
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	1	1	2
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	2	4
METROLINA GREENHOUSES INC	20	20	40

MICHELIN AIRCRAFT TIRE CO	1	1	2
MICHELIN NORTH AMERICA	7	7	14
MILES TALBOTT	2	2	4
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
MONROE AUTOMOTIVE COMPANY LLC	1	1	2
MOORE WALLACE NORTH AMERICA INC	1	1	2
MOORESVILLE CITY SCHOOLS	16	16	32
MORINAGA AMERICA FOODS INC		1	1
MORRISSETTE PAPER COMPANY INC	2	2	4
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	2
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 AIR NATIONL GUARD	1		1
NC BAPTIST HOSPITAL	8	8	16
NC BLUMENTHAL PAC	2	2	4
NC CENTER FOR PUBLIC TV	6	6	12
NC CENTRAL UNIVERSITY	1	1	2
NC DEPT OF HEALTH & HUMAN SERVICES	29	29	58
NC DEPT OF PUBLIC SAFETY	22	22	44
NC STATE UNIVERSITY	1	1	2
NEPTCO INC	3	3	6
NETAPP, INC	2	2	4
NEW EXCELSIOR, INC		1	1
NEW GENERATION YARNS		1	1
NEW SOUTH LUMBER COMPANY INC	3	3	6
NEWTON INSTRUMENTS CO INC	11	11	22
NFI INDUSTRIES INC	1	1	2
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	3	2	5
NORTH STATE FLEXIBLES, LLC	3	3	6
NORTHERN HOSP OF SURRY CO	2	2	4
NORTHROP GRUMMAN GUIDANCE & ELECTRONICS COM	2	2	4
NOVANT HEALTH INC	28	28	56
NOVO NORDISK PHARMACEUTICAL INDUSTRIES, LP	1	1	2
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	1	1	2
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	3	3	6
NW MEDICAL TWO LP	1	1	2
NW RICHARDSON BUILDING LP	1	1	2
NW SIMMONS BUILDING LP	1	1	2
NW WINSLOW BUILDING LP	1	1	2
NW WOODWARD BUILDING LP	1	1	2
NWBH 1 LP	2	2	4
NYPRO CAROLINA	3	3	6
O T SPORTS IND INC	1	1	2
OAK FOREST HEALTH AND REHABILITATION CO	1	1	2
OLD CAROLINA BRICK COMPANY	2	2	4
O'MARA, INC.	1	1	2
OMNISOURCE LLC		1	1
OMNISOURCE SOUTHEAST	5	6	11
OMNOVA SOLUTIONS	4	4	8
ONEAL STEEL INC	4	4	8
ORACLE FLEXIBLE PACKAGING	1	1	2
OTTO INDUSTRIES	2	2	4
OWASA	9	9	18
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	2	2	4
PARK HUNTERVILLE PARTNERS, LLC	3	3	6
PARKDALE AMERICA LLC	9	9	18
PARKDALE MILLS, INC	3	4	7
PARKER HANNIFIN CORPORATION	7	7	14
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
PHONONIC DEVICES, INC	2	2	4
PIEDMONT CHEMICAL	2	2	4
PIEDMONT PUBLISHING	1	1	2
PIEDMONT ROW DRIVE, LLC	11	11	22
PIEDMONT TRIAD REG WATER AUTH		4	4
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
PIONEER DIVERSITIES CO	1	1	2
PITTSBURGH GLASS WORKS LLC		1	1
PLANTATION PIPE LINE	4	4	8
PLYCEM USA, INC	1	1	2
PNEUMAFIL CORPORATION	6	6	12
POLK COUNTY SCHOOLS	5	4	9
POLY PLASTIC PRODUCTS OF NC INC	4	4	8
POLYMER GROUP, INC	1	1	2
POP MORROCROFT L.P.	6	6	12
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 PAI	6	6	12
PRESBYTERIAN HOMES,INC	8	8	16
PRESBYTERIAN HOSPITAL	9	9	18
PRESBYTERIAN MEDICAL CARE CORP	1	1	2
PRESTIGE FARMS	1	1	2
PRESTIGE FARMS INC	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	2	2	4
PUBLIC LIBRARY MECK CO	2	2	4
PUBLIX NORTH CAROLINA LP	21	21	42
PUROLATOR FACET INC	3	2	5
QG PRINTING II LLC	6	6	12
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
RALPH LAUREN CORPORATION	2	2	4
RALPHS FRAME WORKS	2	2	4
RANDOLPH CO BD OF ED	37	37	74
RANDY D MILLER	7	7	14
RAUMEDIC INCORPORATED	2	2	4
RD AMERICA LLC	1	1	2
REEP-OFC WATER RIDGE NC HOLDCO LLC	5	5	10

REGAL CINEMAS INC	5	5	10
REMATTR, INC	2	2	4
RENWOOD MILLS LLC		1	1
REPLACEMENTS LTD	6	6	12
RESEARCH TRIANGLE INSTITUTE		1	1
REVOLUTION TENANT, LLC	2	2	4
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	4	8
ROCK-TENN CONVERTING COMPANY	1	1	2
ROGER MARK PENDLETON	4	4	8
RONNIE D MILES	1	1	2
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	12	12	24
SALEM BUSINESS PARK		1	1
SALISBURY MACHINERY	1	1	2
SAMS EAST INC	17	17	34
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
SARA LEE BAKERY GROUP	5	4	9
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	2	2	4
SEBR 804 LLC	1	1	2
SEBR CENTREPORT 101, LLC	1		1
SEBR CENTREPORT 200 LLC	1	1	2
SEBR CENTREPORT 202 LLC	1		1
SEBR CENTREPORT LLC	1	1	2
SEBR TRIAD DRIVE, LLC	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
SHANER HOTEL GRP LLP	1	1	2
SHAW INDUSTRIES GROUP, INC	1	1	2

SHEETZ DISTRIBUTION SERVICES LLC	1	1	2
SHERRILL FURNITURE	4	5	9
SHERWIN WILLIAMS COMPANY	6	5	11
SHUFORD YARNS,LLC	2	2	4
SHURTAPE TECHNOLOGIES	11	11	22
SIEMENS ENERGY INC	2	3	5
SIEMENS ENERGY, INC	2	2	4
SIERRA NEVADA BREWING CO	1	1	2
SIMON PROPERTIES GROUP	2	2	4
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 DISPLAY & PACKAGING,LLC	3	3	6
SONOCO CRELLIN INC	2	2	4
SONOCO PRODUCTS COMPANY	2	2	4
SONOCO RECYCLING LLC	1	1	2
SOP 200 N COLLEGE OWNER GP LLC	1	1	2
SOUTH COLLEGE STREET LLC	1	1	2
SOUTH FORK INDUSTRIES	2	2	4
SOUTH GRANVILLE WATER AND SEWER AUTHORITY	3	3	6
SOUTH PARK MALL	12	12	24
SOUTHCORR PACKAGING	1	1	2
SOUTHEASTERN CONTAINER INC		2	2
SOUTHERN CAST	3	3	6
SOUTHERN CUSTOM SHUTTERS, INC	1	1	2
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
SUGAR CREEK BREWING COMPANY	3	3	6
SUMITOMO ELECTRIC ESC, INC	2	2	4
SUMMIT HOTEL TRS 135 LLC	1	1	2
SUNCOM WIRELESS PCS, INC		3	3
SUNSET HILL INVESTMENTS LLC	1	1	2
SUNTERRACE CASUAL FURNITURE, INC	2	2	4
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	8	8	16
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	7	7	14
TECHNIMARK LLC	11	11	22
TELERX MARKETING INC	1	1	2
TERRA-MULCH PRODUCTS, LLC	2	4	6
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 C	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 SERVICE	3	3	6
THE POLYMERS CENTER OF EXCELLENCE	2	2	4
THE TIMKEN COMPANY	3	3	6
THERMOFORM PLASTICS	1	1	2
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	8	16
TIGHT LINES PARTNERS LLC	1	1	2
TIME WARNER CABLE SE LLC	15	15	30
TIME WARNER CABLE, INC.	1	1	2
TJX COMPANIES	3	3	6
TKC MANAGEMENT SERVICES	1	1	2
TORINGDON OFFICE OWNER LLC	6	6	12
TOSAF USA, INC	1	1	2
TOSHIBA GLOBAL COMMERCE SOLUTIONS	1	1	2
TOWN BREWING COMPANY, LLC	1	1	2
TOWN OF CHAPEL HILL	3	3	6
TOWN OF HILLSBOROUGH	2	2	4
TOWN OF MOORESVILLE		2	2
TOWN OF VALDESE	3	3	6
TR 121 W TRADE LLC	1	1	2
TRANSCONTINENTAL GAS	1	2	3
TRANSCONTINENTAL HOLDING CORP	11	10	21
TRANSYLVANIA COMMUNITY HOSPITAL	1		1
TRANSYLVANIA COUNTY	1	1	2
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
TRIBAL CASINO GAMING ENTERPRISES HARRAH'S CASINO	1		1
TRIDENT GRAPHICS NA LLC	1	1	2
TRI-HISHTIL, LLC	2	2	4
TRISTONE FLOWTECH USA INC	1	1	2
TROPICAL NUT & FRUIT CO	1	1	2
TRUIST BANK	6	6	12
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	13	13	26
UNC GREENSBORO	23	23	46
UNC ROCKINGHAM HEALTH CARE	3	3	6
UNC SCHOOL OF THE ARTS	32	32	64
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 AIR FILTER CO	4	4	8
UNITED METAL FINISHING, INC	3	1	4
UNITED PARCEL SERV	5	5	10
UNITED PLASTICS CORPORATION	1	1	2

UNITED STATES COLD STORAGE	1	1	2
UNITED THERAPEUTICS CORPORATION	2	2	4
UNIVERSAL FOREST PRODUCTS	2	2	4
UNIVERSITY OF NC HOSPITALS	8	8	16
UPM - RAFLATAC, INC	1	1	2
UPS LOGISTICS	1	1	2
US FOODS, INC	1	1	2
US NATIONAL WHITEWATER CENTER, INC	14	14	28
V F CORPORATION	2	2	4
VALASSIS COMMUNICATIONS	1	1	2
VALDESE WEAVERS	6	6	12
VALLEY HILLS MALL	8	8	16
VANGUARD FURNITURE CO INC	8	8	16
VECO PLAN, LLC		1	1
VERIZON COMMUNICATIONS	3	3	6
VERIZON WIRELESS	6	6	12
VF JEANSWEAR LIMITED PARTNERSHIP	1	1	2
VF SERVICES INC	1	1	2
VIC INC	1	1	2
VULCAN CONSTRUCTION MATERIALS, LLC	50	49	99
W S FORSYTH COUNTY SCHOOLS	88	63	151
W&G ASSOCIATES	1	1	2
WAGER,ROBERT CO,INC	4	4	8
WAKE FOREST UNIVERSITY	9	9	18
WAKE FOREST UNIVERSITY HEALTH SCIENCES	11	11	22
WAL-MART STORES EAST,LP	82	83	165
WALNUT CIRCLE PRESS	2	2	4
WATTS REGULATOR COMPANY	7	7	14
WAYNE FARMS LLC	16	16	32
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	7	12	19
WELLSPRING GROCERY	1	1	2
WELLSPRING RETIREMNT COMM INC	5	5	10
WESTERN CAROLINA UNIVERSITY	1	1	2
WESTROCK COMPANY	4	4	8
WESTROCK CONVERTING COMPANY	12	12	24
WESTROCK CONVERTING LLC	15	15	30
WEXFORD CHESTERFIELD MT LLC	3	3	6
WEXFORD WINSTON SALEM BUILDING 90, LLC	1	1	2
WEXFORD WINSTON-SALEM BAILEY, LLC	1	1	2
WEXFORD WINSTON-SALEM HOLDING, LLC		1	1
WEYERHAEUSER COMPANY	1	1	2
WFC PROPERTY, LLC	1	1	2
WFMY TV INC	2	2	4
WHOLE FOODS MARKET	9	9	18
WIELAND COPPER PRODUCTS LLC	1	1	2
WILDERNESS N.C., INC.	3	3	6
WILKES COUNTY BOARD OF EDUCATION	18	18	36
WILKES REGIONAL MED CTR	10	10	20
WILSON COOK MEDICAL	7	7	14

WINDSTREAM COMMUNICATIONS INC	4	4	8
WINDWARD PRINT STAR INC	1	1	2
WINGATE UNIVERSITY	17	17	34
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	2	1	3
YESTERYEARS BREWERY LLC	1	1	2
YMCA GREENSBORO	7	7	14
YMCA OF NORTHWEST NORTH CAROLINA	4	4	8
ZINK IMAGING INC	2	2	4
<b>Grand Total</b>	<b>5,654</b>	<b>5,154</b>	<b>10,808</b>

**Duke Energy Carolinas, LLC**  
**List of Industrial and Commercial Customers Opted Into Vintage 2020**

Customer Bill Name	Number of Accounts	
	EE YR 20 (JAN 1 - DEC 31)	DSM YR 20 (JAN 1 - DEC 31)
AIRGAS USA, LLC		1
BAKER INTERIORS FURNITURE COMPANY		3
CCC DEVELOPMENT PARTNERS LLC	1	
CENTURY FURNITURE, LLC		1
FERGUSON SUPPLY & BOX	1	
FOOD LION	2	
FOOD LION	7	
FRYE REGINAL MEDICAL CENTER	3	
GILBARCO	1	
GREENSBORO COLLEGE	9	
LOWES HOME CENTER	1	
MCCREARY MODERN INC	3	
MECKLENBURG COUNTY	1	
PITTSBURGH GLASS WORKS LLC		1
POLK COUNTY SCHOOLS -4 METERS	1	
WELLS FARGO BANK		3
WHOLE FOODS MARKET GROUP INC		1
YMCA OF THE TRIANGLE AREA		1
<b>Grand Total</b>	<b>30</b>	<b>11</b>

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Feb 23 2021

**Duke Energy Carolinas, LLC**  
**Shared Savings Incentive Calculation**  
**Docket Number E-7, Sub 1249**  
**Estimate January 1, 2022 - December 31, 2022**

		<u>System</u>
NPV of AC - Res EE <sup>1</sup>		\$ 81,268,695
NPV of AC - Income Qualified EE		6,175,591
NPV of AC - Non Res EE		203,408,669
NPV of AC - DSM		119,990,579
<b>Total NPV of Avoided Costs</b>	<b>A</b>	<b>\$ 410,843,534</b>
Program Costs - Res EE <sup>1</sup>		\$ 45,088,068
Program Costs - Income Qualified EE		8,762,135
Program Costs - Non Res EE		67,298,122
Program Costs - DSM		37,334,782
<b>Total Program Costs</b>	<b>B</b>	<b>\$ 158,483,107</b>
<b>Net Savings</b>	<b>C=A-B</b>	<b>\$ 252,360,428</b>
<b>Sharing Percentage</b>	<b>D</b>	<b>10.60%</b>
Shared Savings - Res EE <sup>1</sup>		\$ 3,835,146
Shared Savings - PRI Res EE <sup>2</sup>		654,613
Shared Savings - Non Res EE		14,427,718
Shared Savings - DSM		8,761,515
<b>Total Shared Savings</b>	<b>E=(A-B)*D</b>	<b>\$ 27,678,992</b>

1) Excludes AC and Program Costs associated with Income Qualified Energy Efficiency and Weatherization Assistance programs.

2) Includes the Res EE Programs associated with Income Qualified Energy Efficiency and Weatherization Assistance.

These programs earn a PRI, Program Return Incentive, calculated on the NPV of Avoided Cost.



**EM&V Activities****Planned Evaluation, Measurement and Verification (EM&V) Activities through the rate period (Dec. 31, 2021)**

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**

Docket No. E-7, Sub 1249

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 Smart Saver 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 Re Smart Saver Prescriptive Lighting								Report
Non-Residential Smart Saver Energy Efficiency Motors Pumps Drives	Non Res 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 <sup>st</sup> EM&V
2 <sup>nd</sup> EM&V
3 <sup>rd</sup> EM&V
4 <sup>th</sup> EM&V
5 <sup>th</sup> EM&V
6 <sup>th</sup> 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)																5 <sup>th</sup> 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 <sup>rd</sup> EM&V	3 <sup>rd</sup> EM&V
	HP Water Heater & Pool Pumps							1 <sup>st</sup> EM&V	Report								
Income-Qualified Energy Efficiency	Referral and Non-Referral HVAC Measures							2nd EM&V	Report								
	Weatherization							1st EM&V	Report								
Multi-Family Energy Efficiency	Refrigerator Replacement							1st EM&V	Report								2 <sup>nd</sup> EM&V
	Low Income Neighborhood																2 <sup>nd</sup> EM&V
My Home Energy Report	Lighting & Water EE Products																2 <sup>nd</sup> EM&V
	MyHER																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																
Non-Residential Smart Saver Prescriptive	All Prescriptive Technologies																
Non-Residential Energy Assessment																	
Small Business Energy Saver	SBES			1st EM&V	Report												
Smart Energy in Offices	SEIO																

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				2022			
		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)	5 <sup>th</sup> EM&V	5 <sup>th</sup> EM&V	Report					
Energy Efficient Appliance and Devices	Lighting - Smart Saver RLED (Free LED)								
	Lighting - Smart Saver Retail		2 <sup>nd</sup> EM&V	2 <sup>nd</sup> EM&V	Report				
	Lighting - Specialty Bulbs/Retail Marketplace		3 <sup>rd</sup> EM&V	3 <sup>rd</sup> EM&V	Report				
HVAC Energy Efficiency	SF Water EE Products		4 <sup>th</sup> EM&V	4 <sup>th</sup> EM&V	4 <sup>th</sup> EM&V	4 <sup>th</sup> EM&V	Report		
	HP Water Heater & Pool Pumps						2 <sup>nd</sup> EM&V	2 <sup>nd</sup> EM&V	2 <sup>nd</sup> EM&V
Income-Qualified Energy Efficiency	Referral and Non-Referral HVAC Measures						3 <sup>rd</sup> EM&V	3 <sup>rd</sup> EM&V	3 <sup>rd</sup> EM&V
	Weatherization	2 <sup>nd</sup> EM&V	Report						
Multi-Family Energy Efficiency	Refrigerator Replacement	2 <sup>nd</sup> EM&V	Report						
	Low Income Neighborhood	4 <sup>th</sup> EM&V	4 <sup>th</sup> EM&V	4 <sup>th</sup> EM&V	Report				
My Home Energy Report	Lighting & Water EE Products	4 <sup>th</sup> EM&V							
Residential Energy Assessments	MyHER	5 <sup>th</sup> EM&V	5 <sup>th</sup> EM&V	5 <sup>th</sup> EM&V	Report				
Business Energy Reports	BER								
EnergyWise Business	EnergyWise Business (EE measure)	Report							
Non-Residential Smart Saver Energy Efficiency Custom	Custom Rebate & Custom Assessment	4 <sup>th</sup> EM&V	Report						
Non-Residential Smart Saver Prescriptive	All Prescriptive Technologies		5 <sup>th</sup> EM&V	Report					
Non-Residential Energy Assessment									
Small Business Energy Saver	SBES	3 <sup>rd</sup> EM&V	Report						
Smart Energy in Offices	SEIO								



Duke Energy Carolinas, LLC  
 January 1, 2020 - December 31, 2020  
 Docket Number E-7, Sub 1249  
 Actual Program and Avoided Costs, January 1, 2015 - December 31, 2020

Market	Program	2015		2016		2017		2018		2019		2020	
		Program Costs	Avoided Costs										
Residential	Appliance Recycling Program	\$ 1,537,244	\$ 1,901,321	\$ -	\$ (97,397)	\$ 58,758	\$ 5,307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Residential	Energy Assessments	3,086,173	10,115,222	2,678,893	6,827,806	2,909,098	6,602,773	2,836,229	5,766,145	3,153,757	4,413,585	3,138,880	4,582,748
Residential	Energy Efficiency Education	2,756,672	2,488,417	2,128,509	3,695,007	2,077,611	3,507,724	1,992,360	2,863,153	1,664,077	2,519,645	1,113,485	1,112,008
Residential	Energy Efficient Appliances and Devices	12,950,485	49,525,402	24,050,774	82,262,218	30,340,728	105,352,687	42,687,244	135,840,645	40,433,533	151,640,687	22,124,101	60,871,151
Residential	Income Qualified Energy Efficiency and Weatherization Assistance	2,238,776	1,854,008	4,792,436	2,984,760	5,905,992	3,185,867	6,490,735	4,253,631	7,344,325	3,570,760	2,787,490	1,094,864
Residential	Multi-Family Energy Efficiency	2,090,925	7,631,163	2,518,908	8,860,796	3,168,422	13,338,656	3,604,921	13,613,278	3,681,262	18,816,658	1,613,839	2,546,883
Residential	My Home Energy Report	9,845,895	16,583,325	10,822,444	20,433,954	15,812,250	21,728,369	12,765,286	22,682,074	10,558,344	33,361,954	12,749,651	33,927,899
Residential	Power Manager	14,634,279	52,718,688	13,644,970	54,179,776	14,021,500	61,074,105	14,423,610	61,920,744	13,386,942	69,783,157	14,303,277	74,785,083
Residential	Residential - Smart Saver Energy Efficiency Program	5,441,633	6,816,479	2,830,566	7,416,109	7,403,327	7,287,263	6,955,146	7,087,718	7,402,907	7,079,940	7,563,287	7,811,427
Non-Residential	Business Energy Report	126,404	-	263,169	352,497	126,680	696	-	-	-	-	-	-
Non-Residential	Energy Management Information Services	-	-	-	-	-	-	-	-	-	-	-	-
Non-Residential	EnergyWise for Business (Non-Residential)	1,548,265	11,248	470,204	514,590	2,488,618	2,330,763	3,062,816	2,279,839	2,697,462	2,728,428	2,941,292	2,131,935
Non-Residential	Non-Residential Smart Saver Custom	9,932,877	53,882,448	7,356,509	39,025,086	7,304,838	34,693,083	6,068,902	23,319,056	8,873,872	35,984,967	5,771,790	15,898,023
Non-Residential	Non-Residential Smart Saver Energy Efficient IT Products	716,542	1,130,386	285,430	777,601	61,215	523	36,875	3,025	44,335	1,385	15,129	1,734
Non-Residential	Non-Residential Smart Saver Custom Energy Assessments	660,420	821,688	2,034,308	9,574,687	2,139,875	10,272,300	497,793	47,297	296,006	493,285	330,629	518,863
Non-Residential	Non-Residential Smart Saver Energy Efficient Food Service Products	394,425	1,099,734	334,117	2,474,132	306,488	999,251	235,605	431,621	339,996	413,886	533,411	730,241
Non-Residential	Non-Residential Smart Saver Energy Efficient HVAC Products	1,142,522	6,221,217	1,473,993	3,344,669	1,560,769	2,958,136	1,620,748	2,809,849	2,208,364	5,516,665	2,450,713	7,423,034
Non-Residential	Non-Residential Smart Saver Energy Efficient Lighting Products	11,315,798	42,227,035	39,622,344	120,373,639	66,089,770	240,054,511	25,872,380	146,516,321	20,814,766	105,408,439	13,098,851	71,994,024
Non-Residential	Non-Residential Smart Saver Energy Efficient Process Equipment Products	83,823	517,362	125,947	273,184	162,413	530,295	67,509	276,697	119,843	493,341	29,081	736,290
Non-Residential	Non-Residential Smart Saver Energy Efficient Pumps and Drives Products	466,478	1,924,038	473,930	1,574,965	528,937	3,070,044	277,785	1,617,544	189,172	720,816	167,464	757,991
Non-Residential	Non-Residential Smart Saver Performance Incentive	-	-	35,670	-	320,559	8,928	479,610	1,671,568	785,165	2,238,186	751,724	2,026,780
Non-Residential	Power Share (Non-Residential)	15,779,050	48,383,622	14,393,024	43,889,394	13,316,535	41,480,644	12,932,977	34,008,701	13,022,816	41,027,382	12,082,697	35,862,426
Non-Residential	Small Business Energy Saver	13,968,790	47,889,974	15,360,852	55,668,830	17,350,877	63,169,894	15,977,993	46,827,028	11,421,399	35,661,729	6,933,130	15,315,818
Non-Residential	Smart Energy in Offices	1,463,240	1,666,306	1,063,729	1,843,559	891,010	1,067,480	219,748	143,266	-	-	-	-
Non-Residential	Disabled Costs from 2015 Program Costs Audit (Order E-7 Sub 1105, d)	(3,823)	-	-	-	-	-	-	-	-	-	-	-
		\$ 110,378,109	\$ 354,819,144	\$ 151,574,107	\$ 466,591,598	\$ 192,488,915	\$ 623,167,221	\$ 159,005,671	\$ 515,935,051	\$ 149,428,343	\$ 445,138,318	\$ 110,720,562	\$ 327,954,102

Costs as Filed in	Docket Number
2014	E-7, Sub 1164
2015	E-7, Sub 1192
2016	E-7, Sub 1232
2017	E-7, Sub 1230
2018	E-7, Sub 1249
2019	E-7, Sub 1249
2020	E-7, Sub 1249



Duke Energy Carolinas  
 Evans Exhibit 1 RMAF  
 Vintage 2022 Estimate - January 1, 2022 to December 31, 2022  
 Docket Number E-7, Sub 1249  
 Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H			
				=(A-B)*C	=(B+D)						
Residential Programs	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
<b>EE Programs</b>											
1 Energy Efficiency Education	1,037	1,464	8,276,026	\$ 3,219,212	\$ 2,418,940	10.6%	\$ 84,829	\$ 2,503,769	73.2212736%		E1 * F1 \$ 1,833,292
2 Energy Efficient Appliances and Devices	7,685	6,005	78,229,772	\$ 34,687,940	\$ 16,096,321	10.6%	\$ 1,970,712	\$ 18,067,033	73.2212736%		E2 * F2 \$ 13,228,912
3 HVAC Energy Efficiency	1,461	1,735	5,457,654	\$ 5,455,626	\$ 5,570,039	10.6%	\$ (12,128)	\$ 5,557,912	73.2212736%		E3 * F3 \$ 4,069,574
4 Low Income Energy Efficiency and Weatherization Assistance	1,954	2,111	9,754,693	\$ 6,334,664	\$ 8,762,135	10.6%	\$ 671,474	\$ 9,433,609	73.2212736%		E4 * F4 \$ 6,907,409
5 Multi-Family Energy Efficiency	2,392	3,242	18,499,000	\$ 9,692,845	\$ 3,248,419	10.6%	\$ 683,109	\$ 3,931,528	73.2212736%		E5 * F5 \$ 2,878,715
6 Residential Energy Assessments	1,605	1,176	14,772,690	\$ 7,719,637	\$ 5,602,448	10.6%	\$ 224,422	\$ 5,826,870	73.2212736%		E6 * F6 \$ 4,266,508
7 Total for Residential Conservation Programs	16,134	15,733	134,989,835	\$ 67,109,926	\$ 41,698,303		\$ 3,622,418	\$ 45,320,721			\$ 33,184,410
8 My Home Energy Report	92,478	80,682	333,200,740	\$ 22,081,491	\$ 12,151,901	10.6%	\$ 1,052,537	\$ 13,204,437	73.2212736%		E8 * F8 \$ 9,668,457
9 Total Residential Conservation and Behavioral Programs	108,612	96,416	468,190,575	\$ 89,191,416	\$ 53,850,203		\$ 4,674,955	\$ 58,525,158			\$ 42,852,867
									<b>NC Residential Peak Demand Allocation Factor</b>		
10 Power Manager®	599,074	14,521	-	\$ 76,782,152	\$ 19,286,677	10.6%	\$ 6,094,520	\$ 25,381,197	74.1953449%	45.442653%	(E10+E26) *F10 *G10 \$ 15,541,981
11 Total Residential	707,687	110,937	468,190,575	\$ 165,973,569	\$ 73,136,880		\$ 10,769,475	\$ 83,906,355			\$ 58,394,848
<b>Non-Residential Programs</b>											
<b>EE Programs</b>											
12 Non Residential Energy Efficient ITEE	-	-	95,047	\$ 17,576	\$ 28,075	10.6%	\$ (1,113)	\$ 26,962	73.2212736%		E12 * F12 \$ 19,742
13 Non Residential Smart Saver Custom	6,621	6,621	46,402,377	\$ 26,188,173	\$ 9,652,719	10.6%	\$ 1,752,758	\$ 11,405,477	73.2212736%		E13 * F13 \$ 8,351,236
14 Non Residential Smart Saver Custom Technical Assessments	611	611	5,350,493	\$ 2,797,242	\$ 1,491,649	10.6%	\$ 138,393	\$ 1,630,042	73.2212736%		E14 * F14 \$ 1,193,538
15 Non Residential Smart Saver Energy Efficient Food Service Products	135	128	1,588,593	\$ 670,524	\$ 294,970	10.6%	\$ 39,809	\$ 334,779	73.2212736%		E16 * F16 \$ 245,129
16 Non Residential Smart Saver Energy Efficient HVAC Products	2,920	2,211	15,862,098	\$ 9,713,875	\$ 3,423,623	10.6%	\$ 666,767	\$ 4,090,389	73.2212736%		E17 * F17 \$ 2,995,035
17 Non Residential Smart Saver Energy Efficient Lighting Products	30,254	29,909	168,159,774	\$ 106,689,873	\$ 29,893,490	10.6%	\$ 8,140,417	\$ 38,033,907	73.2212736%		E18 * F18 \$ 27,848,911
18 Non Residential Smart Saver Energy Efficient Process Equipment Products	174	161	1,089,905	\$ 568,085	\$ 255,128	10.6%	\$ 33,173	\$ 288,302	73.2212736%		E19 * F19 \$ 211,098
19 Non Residential Smart Saver Energy Efficient Pumps and Drives Products	371	379	2,468,639	\$ 1,142,936	\$ 402,620	10.6%	\$ 78,473	\$ 481,094	73.2212736%		E20 * F20 \$ 352,263
20 Smart Saver(R) Non Residential Performance Incentive Program	805	805	7,050,429	\$ 3,444,994	\$ 2,120,079	10.6%	\$ 140,441	\$ 2,260,520	73.2212736%		E21 * F21 \$ 1,655,181
21 Small Business Energy Saver	20,736	12,711	98,041,785	\$ 56,370,506	\$ 19,735,769	10.6%	\$ 3,883,282	\$ 23,619,051	73.2212736%		E22 * F22 \$ 17,294,170
22 Smart Energy in Offices	-	-	-	\$ -	\$ -	10.6%	\$ -	\$ -	73.2212736%		E23 * F23 \$ -
23 Total for Non-Residential Conservation Programs	62,628	53,536	346,109,141	\$ 207,603,784	\$ 67,298,122		\$ 14,872,400	\$ 82,170,522			\$ 60,166,303
									<b>NC Non-Residential Peak Demand Allocation Factor</b>		
24 EnergyWise for Business	17,103	2,496	-	\$ 2,190,679	\$ 5,138,085	10.6%	\$ (312,425)	\$ 4,825,660	74.1953449%		
25 PowerShare®	320,236	297,820	-	\$ 41,017,747	\$ 12,910,020	10.6%	\$ 2,979,419	\$ 15,889,439	74.1953449%		
26 Total for Non-Residential DSM Programs	337,339	300,316	-	\$ 43,208,427	\$ 18,048,105		\$ 2,666,994	\$ 20,715,099	74.1953449%	54.557347%	(E10+E26) *F26 *G26 \$ 18,659,325
27 Total Non Residential	399,967	353,852	346,109,141	\$ 250,812,210	\$ 85,346,227		\$ 17,539,394	\$ 102,885,621			\$ 78,825,628
28 Total All Programs	1,107,654	464,789	814,299,715	\$ 416,785,779	\$ 158,483,107		\$ 28,308,870	\$ 186,791,976			\$ 137,220,476
29 Values from Evans Exhibit 1	1,107,654	464,789	814,299,715	410,843,534	158,483,107		27,678,992	186,162,098			136,759,271
30 RMAF Related Changes	-	-	-	\$ 5,942,245	\$ -		\$ 629,878	\$ 629,878			\$ 461,205

(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

total Costs	\$ 158,483,107	total PPI	\$ 28,308,870
Low Income	(8,762,135)	Low Income	(671,474)
	\$ 149,720,972		\$ 27,637,395

PPI to Cost Ratio 18.46%