

B.1.2 2017 Monthly Indicator Tables

NC - Residential Heat Pump Upgrade Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2014-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program total	
O&M (\$)	Direct Rebate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$907	\$701	\$358	\$208	-\$20	\$165	\$0	\$0	\$0	\$0	\$0	\$208	\$2,527	\$20,454	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	69%	122%	149%	165%	163%	176%	176%	176%	176%	176%	176%	191%	191%	55%	
Participants ¹	Total (Gross)	76	36	6	0	0	0	0	0	0	0	0	0	118	1,424	
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,652	
	Variance	76	36	6	0	0	0	0	0	0	0	0	0	118	-1,228	
	Cum % toward planned total (Gross)														54%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	42,084	16,021	4,987	0	0	0	0	0	0	0	0	0	63,092	735,286	
	78% Realization Rate Adjustment (kWh/yr)	-9,427	-3,589	-1,117	0	0	0	0	0	0	0	0	0	-14,133	-143,621	
	Realization Rate Adjusted Savings (kWh/yr)	32,657	12,433	3,870	0	0	0	0	0	0	0	0	0	48,960	591,665	
	45% Net-To-Gross Adjustment (kWh/yr)	-17,929	-6,826	-2,125	0	0	0	0	0	0	0	0	0	-26,879	-293,980	
	Net Adjusted Savings (kWh/yr)	14,728	5,607	1,745	0	0	0	0	0	0	0	0	0	22,081	297,685	
	Planned Net Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,125,858	
	Cum. % Toward Net Planned Savings (kWh/yr)														14%	
	Avg. Gross Savings Per Participant (kWh/yr)	554	445	831											535	516
Avg. Net Savings Per Participant (kWh/yr)	194	156	291											187	209	
Installed kW	Total Gross Demand Reduction (kW)	11	3	1	0	0	0	0	0	0	0	0	0	14	160	
	89% Realization Rate Adjustment (kW)	-1	0	0	0	0	0	0	0	0	0	0	0	-2	-19	
	Realization Rate Adjusted Gross Demand Reduction(kW)	9	3	1	0	0	0	0	0	0	0	0	0	13	141	
	45% Net-To-Gross Adjustment (kW)	-5	-2	0	0	0	0	0	0	0	0	0	0	-7	-71	
	Net Adjusted Demand Reduction (kW)	4	1	0	0	0	0	0	0	0	0	0	0	6	70	
	Planned Net Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	714	
	Cum. % Toward Net Planned Demand Reduction (kW)														10%	
	Avg. Gross Demand Reduction Per Participant (kW)	0.14	0.09	0.11											0.12	0.11
Avg. Net Demand Reduction Per Participant (kW)	0.06	0.04	0.04											0.05	0.05	
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$12	\$14	\$17	\$18	\$18	\$20	\$20	\$20	\$20	\$20	\$20	\$21	\$21	\$14	
	Cum. \$Admin. per Cum. kWh (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.04	\$0.03	
	Cum. \$Admin. per Cum. kW (Gross)	\$86	\$116	\$136	\$150	\$149	\$160	\$160	\$160	\$160	\$160	\$160	\$174	\$174	\$127.89	
	Cum. SEM&V per Cum.Total Costs (\$)	0%	0%	0%	0%	0%	7%	7%	7%	7%	7%	7%	14%	14%	12%	
	Cum. \$Rebate per Cum. Participant (Gross)															

B.2 North Carolina Residential Heat Pump Tune-up Program 2014-2017

B.2.1 2014-2017 Annual Indicator Tables

NC - Residential Heat Pump Tune-Up Program		2014	2015	2016	2017	2014-2017
Category	Indicator	Total	Total	Total	Total	Program total
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$3,186	\$15,540	\$6,321	\$2,018	\$27,065
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	25%	106%	45%	95%	61%
Participants ¹	Total (Gross)	581	3,307	1,274	125	5,287
	Planned (Gross)	2,777	2,777	1,542	0	7,096
	Variance	-2,196	530	-268	125	-1,809
	Cum % toward planned total (Gross)	21%	119%	83%		75%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	154,857	843,691	322,679	32,050	1,353,277
99%	Realization Rate Adjustment (kWh/yr)	-1,239	-6,750	-2,581	-256	-10,826
	Realization Rate Adjusted Savings (kWh/yr)	153,618	836,942	320,098	31,793	1,342,451
90%	Net-To-Gross Adjustment (kWh/yr)	-15,362	-83,694	-32,010	-3,179	-134,245
	Net Adjusted Savings (kWh/yr)	138,256	753,248	288,088	28,614	1,208,206
	Planned Net Savings (kWh/yr)	2,116,074	2,116,074	174,326	0	4,406,474
	Cum. % Toward Net Planned Savings (kWh/yr)	7%	36%	165%		27%
	Avg. Gross Savings Per Participant (kWh/yr)	267	255	253	256	256
	Avg. Net Savings Per Participant (kWh/yr)	238	228	226	229	229
Installed kW	Total Gross Demand Reduction (kW)	80	625	241	25	971
99%	Realization Rate Adjustment (kW)	-1	-5	-2	0	-8
	Realization Rate Adjusted Gross Demand Reduction(kW)	79	620	239	25	963
90%	Net-To-Gross Adjustment (kW)	-8	-62	-24	-2	-96
	Net Adjusted Demand Reduction (kW)	71	558	215	22	867
	Planned Net Demand Reduction (kW)	639	639	58	0	1,336
	Cum. % Toward Net Planned Demand Reduction (kW)	11%	87%	368%		65%
	Avg. Gross Demand Reduction Per Participant (kW)	0.14	0.19	0.19	0.20	0.18
	Avg. Net Demand Reduction Per Participant (kW)	0.12	0.17	0.17	0.18	0.16
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$5	\$5	\$5	\$16	\$5
	Cum. \$Admin. per Cum. kWh (Gross)	\$0.02	\$0.02	\$0.02	\$0.06	\$0.02
	Cum. \$Admin. per Cum. kW (Gross)	\$40	\$25	\$26	\$81	\$28
	Cum. \$EM&V per Cum Total Costs (\$)	6%	1%	3%	8%	3%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. A participant is a single unit that has been installed and rebated. A unique account number may represent multiple participants if that account had multiple units installed and rebated.

B.2.2 2017 Monthly Indicator Tables

NC - Residential Heat Pump Tune-Up Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2014-2017	
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program total	
O&M (\$)	Direct Rebate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$473	\$371	\$713	\$281	\$2	\$58	\$0	\$0	\$0	\$0	\$0	\$120	\$2,018	\$27,065	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	22%	40%	73%	86%	86%	89%	89%	89%	89%	89%	89%	95%	95%	61%	
Participants ¹	Total (Gross)	80	29	16	0	0	0	0	0	0	0	0	0	125	5,287	
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	7,096	
	Variance	80	29	16	0	0	0	0	0	0	0	0	0	125	-1,809	
	Cum % toward planned total (Gross)														75%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	20,357	7,101	4,592	0	0	0	0	0	0	0	0	0	32,050	1,353,277	
	99% Realization Rate Adjustment (kWh/yr)	-163	-57	-37	0	0	0	0	0	0	0	0	0	-256	-10,826	
	Realization Rate Adjusted Savings (kWh/yr)	20,194	7,044	4,555	0	0	0	0	0	0	0	0	0	31,793	1,342,451	
	90% Net-To-Gross Adjustment (kWh/yr)	-2,019	-704	-456	0	0	0	0	0	0	0	0	0	-3,179	-134,245	
	Net Adjusted Savings (kWh/yr)	18,174	6,340	4,100	0	0	0	0	0	0	0	0	0	28,614	1,208,206	
	Planned Net Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	4,406,474	
	Cum. % Toward Net Planned Savings (kWh/yr)														27%	
	Avg. Gross Savings Per Participant (kWh/yr)	254	245	287											256	256
	Avg. Net Savings Per Participant (kWh/yr)	227	219	256											229	229
Installed kW	Total Gross Demand Reduction (kW)	16	5	4	0	0	0	0	0	0	0	0	0	25	971	
	99% Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	
	Realization Rate Adjusted Gross Demand Reduction(kW)	16	5	4	0	0	0	0	0	0	0	0	0	25	963	
	90% Net-To-Gross Adjustment (kW)	-2	-1	0	0	0	0	0	0	0	0	0	0	-2	-96	
	Net Adjusted Demand Reduction (kW)	14	5	3	0	0	0	0	0	0	0	0	0	22	867	
	Planned Net Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	1,336	
	Cum. % Toward Net Planned Demand Reduction (kW)														65%	
	Avg. Gross Demand Reduction Per Participant (kW)	0.20	0.19	0.22											0.20	0.18
	Avg. Net Demand Reduction Per Participant (kW)	0.18	0.17	0.20											0.18	0.16
Program Performance	Cum. SAdmin. per Cum. Participant (Gross)	\$6	\$8	\$12	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$16	\$16	\$5	
	Cum. SAdmin. per Cum. kWh (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.06	\$0.02	
	Cum. SAdmin. per Cum. kW (Gross)	\$30	\$40	\$63	\$74	\$74	\$77	\$77	\$77	\$77	\$77	\$77	\$81	\$81	\$28	\$28
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	8%	8%	3%
	Cum. SRelate per Cum. Participant (Gross)															

B.3 North Carolina Residential Duct Sealing Program 2014-2017

B.3.1 2014-2017 Annual Indicator Tables

NC - Residential Duct Sealing Program		2014	2015	2016	2017	2014-2017
Category	Indicator	Total	Total	Total	Total	Program total
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$951	\$3,700	\$4,363	\$690	\$9,704
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	18%	93%	121%	96%	78%
Participants ¹	Total (Gross)	0	323	217	14	554
	Planned (Gross)	346	346	101	0	793
	Variance	-346	-23	116	14	-239
	Cum % toward planned total (Gross)	0%	93%	215%		70%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	201,495	129,136	8,003	338,633
49%	Realization Rate Adjustment (kWh/yr)	0	-101,956	-65,343	-4,049	-171,348
	Realization Rate Adjusted Savings (kWh/yr)	0	99,538	63,793	3,953	167,285
80%	Net-To-Gross Adjustment (kWh/yr)	0	-19,908	-12,759	-791	-33,457
	Net Adjusted Savings (kWh/yr)	0	79,631	51,034	3,163	133,828
	Planned Net Savings (kWh/yr)	181,304	181,304	12,013	0	374,621
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	44%	425%		36%
	Avg. Gross Savings Per Participant (kWh/yr)		624	595	572	611
	Avg. Net Savings Per Participant (kWh/yr)		247	235	226	242
Installed kW	Total Gross Demand Reduction (kW)	0	148	95	6	249
43%	Realization Rate Adjustment (kW)	0	-85	-55	-3	-143
	Realization Rate Adjusted Gross Demand Reduction(kW)	0	63	40	2	106
80%	Net-To-Gross Adjustment (kW)	0	-13	-8	0	-21
	Net Adjusted Demand Reduction (kW)	0	50	32	2	85
	Planned Net Demand Reduction (kW)	114	114	4	0	232
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	44%	802%		36%
	Avg. Gross Demand Reduction Per Participant (kW)		0.46	0.44	0.42	0.45
	Avg. Net Demand Reduction Per Participant (kW)		0.16	0.15	0.14	0.15
Program	Cum. \$Admin. per Cum. Participant (Gross)		\$11	\$20	\$49	\$18
Performance	Cum. \$Admin. per Cum. kWh (Gross)		\$0.02	\$0.03	\$0.09	\$0.03
	Cum. \$Admin. per Cum. kW (Gross)		\$25	\$46	\$117	\$39
	Cum. \$EM&V per Cum Total Costs (\$)	41%	5%	5%	25%	9%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. A participant is a single unit that has been installed and rebated. A unique account number may represent multiple participants if that account had multiple units installed and rebated.

B.3.2 2017 Monthly Indicator Tables

NC - Residential Duct Sealing Program		2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 June	2017 Jul	2017 Aug	2017 Sept	2017 Oct	2017 Nov	2017 Dec	2017 Total	2014-2017 Program total	
Category	Indicator															
O&M (\$)	Direct Rebate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$225	\$41	\$100	\$148	-\$1	\$56	\$0	\$0	\$0	\$0	\$0	\$121	\$690	\$9,704	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	31%	37%	51%	71%	71%	79%	79%	79%	79%	79%	79%	96%	96%	78%	
Participants ¹	Total (Gross)	8	5	1	0	0	0	0	0	0	0	0	0	14	554	
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	793	
	Variance	8	5	1	0	0	0	0	0	0	0	0	0	14	-239	
	Cum % toward planned total (Gross)														70%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	5,236	2,311	456	0	0	0	0	0	0	0	0	0	8,003	338,633	
49%	Realization Rate Adjustment (kWh/yr)	-2,649	-1,169	-231	0	0	0	0	0	0	0	0	0	-4,049	-171,348	
	Realization Rate Adjusted Savings (kWh/yr)	2,587	1,142	225	0	0	0	0	0	0	0	0	0	3,953	167,285	
80%	Net-To-Gross Adjustment (kWh/yr)	-517	-228	-45	0	0	0	0	0	0	0	0	0	-791	-33,457	
	Net Adjusted Savings (kWh/yr)	2,069	913	180	0	0	0	0	0	0	0	0	0	3,163	133,828	
	Planned Net Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	374,621	
	Cum. % Toward Net Planned Savings (kWh/yr)														36%	
	Avg. Gross Savings Per Participant (kWh/yr)	655	462	456										572	611	
	Avg. Net Savings Per Participant (kWh/yr)	259	183	180										226	242	
Installed kW	Total Gross Demand Reduction (kW)	4	2	0	0	0	0	0	0	0	0	0	0	6	249	
43%	Realization Rate Adjustment (kW)	-2	-1	0	0	0	0	0	0	0	0	0	0	-3	-143	
	Realization Rate Adjusted Gross Demand Reduction(kW)	2	1	0	0	0	0	0	0	0	0	0	0	2	106	
80%	Net-To-Gross Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	-21	
	Net Adjusted Demand Reduction (kW)	1	1	0	0	0	0	0	0	0	0	0	0	2	85	
	Planned Net Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	232	
	Cum. % Toward Net Planned Demand Reduction (kW)														36%	
	Avg. Gross Demand Reduction Per Participant (kW)	0.48	0.34	0.33										0.42	0.45	
	Avg. Net Demand Reduction Per Participant (kW)	0.16	0.12	0.11										0.14	0.15	
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$28	\$20	\$26	\$37	\$37	\$41	\$41	\$41	\$41	\$41	\$41	\$41	\$49	\$49	\$18
	Cum. \$Admin. per Cum. kWh (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.09	\$0.03	
	Cum. \$Admin. per Cum. kW (Gross)	\$58	\$48	\$62	\$87	\$87	\$97	\$97	\$97	\$97	\$97	\$97	\$97	\$117	\$39	
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	9%	9%	9%	9%	9%	9%	9%	25%	25%	9%
	Cum. \$Rebate per Cum. Participant (Gross)															

B.4 North Carolina Residential Home Energy Check-up Program 2014-2017

B.4.1 2014-2017 Annual Indicator Tables

NC - Residential Home Energy Check-Up Program		2014	2015	2016	2017	2014-2017
Category	Indicator	Total	Total	Total	Total ²	Program total
O&M(\$)	Direct Rebate					
O&M(\$)	Direct Implementation					
O&M(\$)	Direct EM&V					
O&M(\$)	Indirect Other (Administrative)	\$654	\$11,982	\$658	\$1,086	\$14,380
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	17%	379%	44%	46%	123%
Participants ¹	Total (Gross)	0	996	4	49	1,049
	Planned (Gross)	160	160	881	0	1,201
	Variance	-160	836	-877	49	-152
	Cum % toward planned total (Gross)	0%	623%	0%		87%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	593,172	1,495	35,051	629,718
154%	Realization Rate Adjustment (kWh/yr)	0	317,347	800	18,752	336,899
	Realization Rate Adjusted Savings (kWh/yr)	0	910,520	2,294	53,803	966,617
82%	Net-To-Gross Adjustment (kWh/yr)	0	-164,804	-415	-9,738	-174,958
	Net Adjusted Savings (kWh/yr)	0	745,716	1,879	44,065	791,659
	Planned Net Savings (kWh/yr)	162,720	162,720	308,536	0	633,976
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	458%	1%		125%
	Avg. Gross Savings Per Participant (kWh/yr)		596	374	715	600
	Avg. Net Savings Per Participant (kWh/yr)		749	470	899	755
Installed kW	Total Gross Demand Reduction (kW)	0	52	0	2	55
154%	Realization Rate Adjustment (kW)	0	28	0	1	29
	Realization Rate Adjusted Gross Demand Reduction(kW)	0	80	0	4	84
82%	Net-To-Gross Adjustment (kW)	0	-14	0	-1	-15
	Net Adjusted Demand Reduction (kW)	0	65	0	3	69
	Planned Net Demand Reduction (kW)	29	29	67	0	125
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	227%	1%		55%
	Avg. Gross Demand Reduction Per Participant (kW)		0.05	0.04	0.05	0.05
	Avg. Net Demand Reduction Per Participant (kW)		0.07	0.05	0.06	0.07
Program	Cum. \$Admin. per Cum. Participant (Gross)		\$12	\$165	\$22	\$14
Performance	Cum. \$Admin. per Cum. kWh (Gross)		\$0.02	\$0.44	\$0.03	\$0.02
	Cum. \$Admin. per Cum. kW (Gross)		\$230	\$3,983	\$443	\$263
	Cum. \$EM&V per Cum Total Costs (\$)	24.8%	2.3%	50.0%	20.2%	6.7%
	Cum. \$Rebate per Cum. Participant (Gross)					

EXTRAORDINARILY SENSITIVE INFORMATION REDACTED

1. A participant is a single unit that has been installed and rebated. A unique account number may represent multiple participants if that account had multiple units installed and rebated.
2. The 2017 total gross deemed savings values reported in this table include adjustments of -2.1 kWh/year and -0.00044 kW made to the January 2017 reported savings. The adjustments accounts for corrections to STEP Manual version 7.0.0 issued on May 1, 2017. Specifically, the correction was in section 2.1.5 for "Low-Flow Showerhead" measures, to the " ΔT " variable, which is a measure of the change in temperature of the water used for shower and temperature entering the house ($\Delta T = T_{\text{shower}} - T_{\text{in house}}$). STEP Manual 7.0.0 reported the value as 44.9°F, but has been corrected to 44.1°F. This correction is reflected in STEP Manual version 8.0.0 in this EM&V report.

EXTRAORDINARILY SENSITIVE INFORMATION REDACTED

B.4.2 2017 Monthly Indicator Tables

NC - Residential Home Energy Check-Up Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2014-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total ¹	Program total	
O&M (\$)	Direct Rebate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$85	\$295	\$397	\$83	-\$3	\$106	\$0	\$0	\$0	\$0	\$0	\$122	\$1,086	\$14,380	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	4%	16%	33%	36%	36%	40%	40%	40%	40%	40%	40%	46%	46%	123%	
Participants ¹	Total (Gross)	5	39	5	0	0	0	0	0	0	0	0	0	49	1,049	
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	1,201	
	Variance	5	39	5	0	0	0	0	0	0	0	0	0	49	-152	
	Cum % toward planned total (Gross)														87%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	5,704	24,660	4,687	0	0	0	0	0	0	0	0	0	35,051	629,718	
	154% Realization Rate Adjustment (kWh/yr)	3,052	13,193	2,508	0	0	0	0	0	0	0	0	0	18,752	336,899	
	Realization Rate Adjusted Savings (kWh/yr)	8,756	37,852	7,195	0	0	0	0	0	0	0	0	0	53,803	966,617	
	82% Net-To-Gross Adjustment (kWh/yr)	-1,585	-6,851	-1,302	0	0	0	0	0	0	0	0	0	-9,738	-174,958	
	Net Adjusted Savings (kWh/yr)	7,171	31,001	5,892	0	0	0	0	0	0	0	0	0	44,065	791,659	
	Planned Net Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	633,976	
	Cum. % Toward Net Planned Savings (kWh/yr)														125%	
	Avg. Gross Savings Per Participant (kWh/yr)	1,141	632	937											715	600
	Avg. Net Savings Per Participant (kWh/yr)	1,434	795	1,178											899	755
Installed kW	Total Gross Demand Reduction (kW)	0	2	0	0	0	0	0	0	0	0	0	0	2	55	
	154% Realization Rate Adjustment (kW)	0	1	0	0	0	0	0	0	0	0	0	0	1	29	
	Realization Rate Adjusted Gross Demand Reduction(kW)	0	3	0	0	0	0	0	0	0	0	0	0	4	84	
	82% Net-To-Gross Adjustment (kW)	0	-1	0	0	0	0	0	0	0	0	0	0	-1	-15	
	Net Adjusted Demand Reduction (kW)	0	2	0	0	0	0	0	0	0	0	0	0	3	69	
	Planned Net Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	125	
	Cum. % Toward Net Planned Demand Reduction (kW)														55%	
	Avg. Gross Demand Reduction Per Participant (kW)	0.06	0.05	0.05											0.05	0.05
	Avg. Net Demand Reduction Per Participant (kW)	0.08	0.06	0.07											0.06	0.07
Program Performance	Cum. SAdmin. per Cum. Participant (Gross)	\$17.0	\$8.6	\$15.9	\$17.6	\$17.5	\$19.7	\$19.7	\$19.7	\$19.7	\$19.7	\$19.7	\$22.2	\$22	\$14	
	Cum. SAdmin. per Cum. kWh (Gross)	\$0.01	\$0.01	\$0.02	\$0.02	\$0.02	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.02	
	Cum. SAdmin. per Cum. kW (Gross)	\$266	\$174	\$317	\$351	\$350	\$393	\$393	\$393	\$393	\$393	\$393	\$443	\$443	\$263	
	Cum. SEM&V per Cum Total Costs (\$)	0.0%	0.0%	0.0%	0.0%	0.0%	10.6%	10.6%	10.6%	10.6%	10.6%	10.6%	20.2%	20.2%	6.7%	
	Cum. SRebate per Cum. Participant (Gross)															

B.5 North Carolina Residential Income and Age Qualifying Home Improvement Program 2014-2017

B.5.1 2016-2017 Annual Indicator Tables

NC- Residential Income and Age Qualifying Home Improvement Program		2016	2017	2016-2017
Category	Indicator	Total	Total ²	Total
O&M (\$)	Direct Rebate			
O&M (\$)	Direct Implementation			
O&M (\$)	Direct EM&V			
O&M (\$)	Indirect Other (Administrative)	\$8,999	\$12,899	\$21,897
Capital (\$)		\$0	\$0	\$0
Costs (\$)	Total			
Costs (\$)	Planned			
Costs (\$)	Variance			
	Cum. % toward planned total	75%	107%	89%
Participants ¹	Total (Gross)	157	130	287
	Planned (Gross)	257	254	511
	Variance	-100	-124	-224
	Cum % toward planned total (Gross)	61%	51%	56%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	106,379	109,794	216,174
	100% Realization Rate Adjustment (kWh/yr)	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	106,379	109,794	216,174
80%	Net-To-Gross Adjustment (kWh/yr)	-21,276	-21,959	-43,235
	Net Adjusted Savings (kWh/yr)	85,103	87,835	172,939
	Planned Net Savings (kWh/yr)	67,040	51,199	118,239
	Cum. % Toward Net Planned Savings (kWh/yr)	127%	172%	146%
	Avg. Gross Savings Per Participant (kWh/yr)	678	845	753
	Avg. Net Savings Per Participant (kWh/yr)	542	676	603
Installed kW	Total Gross Demand Reduction (kW)	11	9	20
	100% Realization Rate Adjustment (kW)	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	11	9	20
80%	Net-To-Gross Adjustment (kW)	-2	-2	-4
	Net Adjusted Demand Reduction (kW)	8	7	16
	Planned Net Demand Reduction (kW)	15	11	26
	Cum. % Toward Net Planned Demand Reduction (kW)	57%	64%	60%
	Avg. Gross Demand Reduction Per Participant (kW)	0.07	0.07	0.07
	Avg. Net Demand Reduction Per Participant (kW)	0.05	0.06	0.06
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$57	\$99	\$157
	Cum. \$Admin. per Cum. kWh (Gross)	\$0	\$0	\$0
	Cum. \$Admin. per Cum. kW (Gross)	\$847	\$1,415	\$2,263
	Cum. \$EM&V per Cum Total Costs (\$)	2%	2%	4%
	Cum. \$Rebate per Cum. Participant (Gross)			

1. A participant is unique account that has been installed and rebated. A unique account number may represent multiple participants if that account had multiple units installed and rebated.
2. The 2017 total gross deemed savings values reported in this table include adjustments of -307 kWh/year and -0.026 kW made to the January 2017 reported savings. The adjustments accounts for corrections to STEP Manual version 7.0.0 issued on May 1, 2017. Specifically, the correction was in section 2.1.5 for "Low-Flow Showerhead" measures, to the " ΔT " variable, which is a measure of the change in temperature of the water used for shower and temperature entering the house ($\Delta T = T_{\text{shower}} - T_{\text{in house}}$). STEP Manual 7.0.0 reported the value as 44.9°F, but has been corrected to 44.1°F. This correction is reflected in STEP Manual version 8.0.0 in this EM&V report.

B.5.2 2017 Monthly Indicator Tables

NC- Residential Income and Age Qualifying Home Improvement Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2016-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total ¹	Total
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	\$3,813	\$1,161	\$1,402	\$1,267	\$648	\$552	\$398	\$531	\$426	\$184	\$523	\$1,994	\$12,899	\$21,897
Capital (\$)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	32%	41%	53%	63%	69%	73%	77%	81%	85%	86%	90%	107%	107%	89%
Participants ¹	Total (Gross)	42	16	12	13	6	4	2	4	2	0	7	22	130	287
	Planned (Gross)	22	22	21	21	21	21	21	21	21	21	21	21	254	511
	Variance	20	-6	-9	-8	-15	-17	-19	-17	-19	-21	-14	1	-124	-224
	Cum. % toward planned total (Gross)	17%	23%	28%	33%	35%	37%	37%	39%	40%	40%	43%	51%	51%	56%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	41,063	10,446	11,018	7,125	4,317	2,694	1,821	5,473	5,316	0	4,363	16,160	109,794	216,174
	100% Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	41,063	10,446	11,018	7,125	4,317	2,694	1,821	5,473	5,316	0	4,363	16,160	109,794	216,174
	80% Net-To-Gross Adjustment (kWh/yr)	-8,213	-2,089	-2,204	-1,425	-863	-539	-364	-1,095	-1,063	0	-873	-3,232	-21,959	-43,235
	Net Adjusted Savings (kWh/yr)	32,850	8,357	8,814	5,700	3,453	2,156	1,457	4,378	4,253	0	3,490	12,928	87,835	172,939
	Planned Net Savings (kWh/yr)	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,267	51,199	118,239
	Cum. % Toward Net Planned Savings (kWh/yr)	64%	80%	98%	109%	116%	120%	123%	131%	139%	139%	146%	172%	172%	146%
	Avg. Gross Savings Per Participant (kWh/yr)	978	653	918	548	719	674	910	1,368	2,658	N/A	623	735	845	753
	Avg. Net Savings Per Participant (kWh/yr)	782	522	735	438	576	539	728	1,095	2,126	N/A	499	588	676	603
Installed kW	Total Gross Demand Reduction (kW)	3	1	1	1	0	0	0	0	0	0	0	1	9	20
	100% Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	3	1	1	1	0	0	0	0	0	0	0	1	9	20
	80% Net-To-Gross Adjustment (kW)	-1	0	0	0	0	0	0	0	0	0	0	0	-2	-4
	Net Adjusted Demand Reduction (kW)	3	1	1	1	0	0	0	0	0	0	0	1	7	16
	Planned Net Demand Reduction (kW)	1	1	1	1	1	1	1	1	1	1	1	1	11	26
	Cum. % Toward Net Planned Demand Reduction (kW)	23%	30%	36%	42%	45%	46%	47%	50%	52%	52%	54%	64%	64%	60%
	Avg. Gross Demand Reduction Per Participant (kW)	0.08	0.06	0.08	0.06	0.07	0.07	0.07	0.08	0.14	N/A	0.05	0.06	0.07	0.07
	Avg. Net Demand Reduction Per Participant (kW)	0.06	0.05	0.06	0.05	0.05	0.05	0.05	0.06	0.11	N/A	0.04	0.05	0.06	0.06
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$91	\$86	\$91	\$92	\$93	\$95	\$97	\$99	\$101	\$103	\$101	\$99	\$99	\$157
	Cum. \$Admin. per Cum. kWh (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Cum. \$Admin. per Cum. kW (Gross)	\$1,174	\$1,183	\$1,245	\$1,287	\$1,309	\$1,339	\$1,372	\$1,385	\$1,392	\$1,417	\$1,415	\$1,415	\$1,415	\$2,263
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	4%
	Cum. \$Rebate per Cum. Participant (Gross)														

B.6 North Carolina Residential Retail LED Lighting Program 2017

B.6.1 2017 Monthly Indicator Tables

NC-Residential LED Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total
O&M (\$)	Direct Rebate													
O&M (\$)	Direct Implementation													
O&M (\$)	Direct EM&V													
O&M (\$)	Indirect Other (Administrative)	\$109	\$59	\$66	\$292	\$193	\$234	\$7,133	\$2,772	\$3,525	\$3,472	\$2,532	\$5,772	\$26,160
Costs (\$)	Total													
Costs (\$)	Planned													
Costs (\$)	Variance													
	Cum. % toward planned total	0%	0%	1%	1%	2%	2%	19%	25%	34%	42%	48%	61%	61%
Participants ¹	Total (Gross)	0	0	0	0	0	0	0	5,018	14,683	14,758	19,836	15,966	70,261
	Planned (Gross)	13,750	13,750	13,750	13,750	13,750	13,750	13,750	13,750	13,750	13,750	13,750	13,750	165,000
	Variance	-13,750	-13,750	-13,750	-13,750	-13,750	-13,750	-13,750	-8,732	933	1,008	6,086	2,216	-94,739
	Cum % toward planned total (Gross)	0%	0%	0%	0%	0%	0%	0%	3%	12%	21%	33%	43%	43%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	0	0	0	0	0	0	180,062	518,163	524,964	736,717	589,836	2,549,741
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	0	0	0	0	0	0	0	180,062	518,163	524,964	736,717	589,836	2,549,741
93%	Net-To-Gross Adjustment (kWh/yr)	0	0	0	0	0	0	0	-12,604	-36,271	-36,748	-51,570	-41,289	-178,482
	Net Adjusted Savings (kWh/yr)	0	0	0	0	0	0	0	167,457	481,891	488,217	685,147	548,547	2,371,259
	Planned Net Savings (kWh/yr)	187,566	187,566	187,566	187,566	187,566	187,566	187,566	187,566	187,566	187,566	187,566	187,566	2,250,789
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	0%	0%	0%	0%	0%	0%	7%	29%	51%	81%	105%	105%
	Avg. Gross Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	35	36	37	37	36
	Avg. Net Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	33	33	33	35	34	34
Installed kW	Total Gross Demand Reduction (kW)	0	0	0	0	0	0	0	17	49	50	70	56	242
100%	Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	0	0	0	0	0	0	0	17	49	50	70	56	242
93%	Net-To-Gross Adjustment (kW)	0	0	0	0	0	0	0	-1	-3	-3	-5	-4	-17
	Net Adjusted Demand Reduction (kW)	0	0	0	0	0	0	0	16	46	46	65	52	225
	Planned Net Demand Reduction (kW)	28	28	28	28	28	28	28	28	28	28	28	28	331
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	0%	0%	0%	0%	0%	5%	19%	33%	52%	68%	68%
	Avg. Gross Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.003	0.003	0.003	0.004	0.004	0.003
	Avg. Net Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.003	0.003	0.003	0.003	0.003	0.003
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$2.16	\$0.73	\$0.52	\$0.38	\$0.37	\$0.37
	Cum. \$Admin. per Cum. kWh (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$0.06	\$0.02	\$0.01	\$0.01	\$0.01	\$0.01
	Cum. \$Admin. per Cum. kW (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$634	\$217	\$154	\$109	\$108	\$108
	Cum. \$EM&V per Cum. Total Costs (\$)	0%	0%	0%	0%	0%	0%	0%	4%	4%	6%	7%	7%	7%
	Cum. \$Rebate per Cum. Participant (Gross)													

1. A participant is a lamp.

B.7 North Carolina Non-residential Duct Testing and Sealing Program 2014-2017

B.7.1 2014-2017 Annual Indicator Tables

NC - Non-Residential Duct Sealing and Testing Program		2014	2015	2016	2017	2014-2017
Category	Indicator	Total	Total	Total ²	Total	Program total
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$8,090	\$28,601	\$11,032	\$5,524	\$53,248
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	69%	196%	91%	196%	123%
Participants ¹	Total (Gross)	60	152	33	5	250
	Planned (Gross)	30	30	39	0	99
	Variance	30	122	-6	5	149
	Cum % toward planned total (Gross)	200%	507%	85%		253%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	595,895	2,400,813	550,135	184,255	3,731,098
87%	Realization Rate Adjustment (kWh/yr)	-77,466	-312,106	-71,518	-23,953	-485,043
	Realization Rate Adjusted Savings (kWh/yr)	518,428	2,088,707	478,618	160,302	3,246,055
97%	Net-To-Gross Adjustment (kWh/yr)	-14,516	-58,484	-13,401	-4,488	-90,890
	Net Adjusted Savings (kWh/yr)	503,912	2,030,224	465,216	155,813	3,155,166
	Planned Net Savings (kWh/yr)	989,610	989,610	230,534	0	2,209,754
	Cum. % Toward Net Planned Savings (kWh/yr)	51%	205%	202%		143%
	Avg. Gross Savings Per Participant (kWh/yr)	9,932	15,795	16,671	36,851	14,924
	Avg. Net Savings Per Participant (kWh/yr)	8,399	13,357	14,097	31,163	12,621
Installed kW	Total Gross Demand Reduction (kW)	65	292	160	54	570
94%	Realization Rate Adjustment (kW)	-4	-17	-9	-3	-33
	Realization Rate Adjusted Gross Demand Reduction (kW)	61	275	150	51	537
97%	Net-To-Gross Adjustment (kW)	-2	-8	-4	-1	-15
	Net Adjusted Demand Reduction (kW)	60	267	146	49	522
	Planned Net Demand Reduction (kW)	221	221	95	0	537
	Cum. % Toward Net Planned Demand Reduction (kW)	27%	121%	154%		97%
	Avg. Gross Demand Reduction Per Participant (kW)	1.08	1.92	4.84	10.77	2.28
	Avg. Net Demand Reduction Per Participant (kW)	0.99	1.76	4.43	9.86	2.09
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$135	\$188	\$334	\$1,105	\$213
	Cum. \$Admin. per Cum. kWh (Gross)	\$0.01	\$0.01	\$0.02	\$0.03	\$0.01
	Cum. \$Admin. per Cum. kW (Gross)	\$124	\$98	\$69	\$103	\$93.42
	Cum. \$EM&V per Cum Total Costs (\$)	9.3%	0.7%	2.0%	3.7%	2.8%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. A participant is the first instance of unique account number that has been installed and rebated. A unique account number that may have multiple approved rebates in two or more different months is counted as a single participant.
2. The 2016 total gross deemed savings values reported in this table differs from values in the May 1, 2017 EM&V report, and have been refiled with the Commission. The adjustments totalled -83,464 kWh/year and 0 kW for 2016 reported savings. The adjustments accounts for corrections to STEP Manual version 7.0.0 issued on May 1, 2017, in section 12. The adjustment was made to full load heating hours (FLHheat) in Tables 90 and 91 to be consistent with those in the Mid-Atlantic TRM v 6, in response to requests by the North Carolina Public Staff Utilities Commission Re: Docket No. E-22, Sub 545, on October 23, 2017. This affected multiple non-residential HVAC measures (e.g. heat pumps, variable refrigerant flow, mini split systems) that reference Table 90 and 91, in multiple non-residential programs. This adjustment is reflected in STEP Manual version 8.0.0 in this EM&V report.

Another adjustment was made to correct the full load cooling hours in North Carolina for this program. The code that calculated this savings did not match the STEP Manual v 7.0.0.

B.7.2 2017 Monthly Indicator Tables

NC - Non-Residential Duct Sealing and Testing Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2014-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program total
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	\$572	\$257	\$4,400	\$83	\$0	\$106	\$0	\$0	\$0	\$0	\$0	\$107	\$5,524	\$53,248
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	20%	29%	185%	188%	188%	192%	192%	192%	192%	192%	192%	196%	196%	123%
Participants ¹	Total (Gross)	3	1	1	0	0	0	0	0	0	0	0	0	5	250
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	99
	Variance	3	1	1	0	0	0	0	0	0	0	0	0	5	149
	Cum % toward planned total (Gross)														253%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	10,128	10,168	163,959	0	0	0	0	0	0	0	0	0	184,255	3,731,098
87%	Realization Rate Adjustment (kWh/yr)	-1,317	-1,322	-21,315	0	0	0	0	0	0	0	0	0	-23,953	-485,043
	Realization Rate Adjusted Savings (kWh/yr)	8,811	8,846	142,644	0	0	0	0	0	0	0	0	0	160,302	3,246,055
97%	Net-To-Gross Adjustment (kWh/yr)	-247	-248	-3,994	0	0	0	0	0	0	0	0	0	-4,488	-90,890
	Net Adjusted Savings (kWh/yr)	8,564	8,599	138,650	0	0	0	0	0	0	0	0	0	155,813	3,155,166
	Planned Net Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,209,754
	Cum. % Toward Net Planned Savings (kWh/yr)														143%
	Avg. Gross Savings Per Participant (kWh/yr)	3,376	10,168	163,959										36,851	14,924
	Avg. Net Savings Per Participant (kWh/yr)	2,855	8,599	138,650										31,163	12,621
Installed kW	Total Gross Demand Reduction (kW)	3	2	50	0	0	0	0	0	0	0	0	0	54	570
94%	Realization Rate Adjustment (kW)	0	0	-3	0	0	0	0	0	0	0	0	0	-3	-33
	Realization Rate Adjusted Gross Demand Reduction (kW)	2	1	47	0	0	0	0	0	0	0	0	0	51	537
97%	Net-To-Gross Adjustment (kW)	0	0	-1	0	0	0	0	0	0	0	0	0	-1	-15
	Net Adjusted Demand Reduction (kW)	2	1	46	0	0	0	0	0	0	0	0	0	49	522
	Planned Net Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	537
	Cum. % Toward Net Planned Demand Reduction (kW)														97%
	Avg. Gross Demand Reduction Per Participant (kW)	0.86	1.56	49.70										10.77	2.28
	Avg. Net Demand Reduction Per Participant (kW)	0.79	1.43	45.51										9.86	2.09
Program	Cum. \$Admin. per Cum. Participant (Gross)	\$191	\$207	\$1,046	\$1,062	\$1,062	\$1,083	\$1,083	\$1,083	\$1,083	\$1,083	\$1,083	\$1,105	\$1,105	\$213
Performance	Cum. \$Admin. per Cum. kWh (Gross)	\$0.06	\$0.04	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.01
	Cum. \$Admin. per Cum. kW (Gross)	\$221	\$200	\$97	\$99	\$99	\$101	\$101	\$101	\$101	\$101	\$101	\$103	\$103	\$93.42
	Cum. \$EM&V per Cum. Total Costs (\$)	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	3.7%	3.7%	2.8%
	Cum. \$Rebate per Cum. Participant (Gross)														

B.8 North Carolina Non-residential Energy Audit Program 2014-2017

B.8.1 2014-2017 Annual Indicator Tables

NC - Non-Residential Energy Audit Program		2014	2015	2016	2017	2014-2017
Category	Indicator	Total	Total	Total	Total	Program Total
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$6,487	\$3,164	\$3,088	\$3,936	\$16,675
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	139%	105%	78%	515%	127%
Audits	Total (Gross)	16	81	14	0	111
Participants ¹	Total (Gross)	16	78	12	2	108
	Planned (Gross)	37	37	48	0	122
	Variance	-21	41	-36	2	-14
	Cum % toward planned total (Gross)	43%	211%	25%		89%
Installed kWh/year	Total (Gross)	495,669	225,418	270,829	825,840	1,817,756
	Attribution Rate weighted by Measure	99%	99%	99%	76%	89%
	Realization Rate weighted by Measure	99%	69%	94%	79%	85%
	Adjusted (Net) by Realization Rate and Attribution Rate	487,729	153,498	253,571	491,719	1,386,517
	Planned (Net)	1,093,017	827,170	323,638	0	2,243,824
	Cum. % toward planned total (Net)	45%	19%	78%		62%
	Avg. Gross Savings Per Participant (kWh/yr)	30,979	2,890	22,569	412,920	16,831
	Avg. Net Savings Per Participant (kWh/yr)	30,483	1,968	21,131	245,859	12,838
Installed kW	Total (Gross)	57	30	31	147	264
	Attribution Rate weighted by Measure	99%	99%	99%	76%	86%
	Realization Rate weighted by Measure	99%	64%	94%	79%	83%
	Adjusted kW (Net)	55	20	29	80	184
	Planned (Net)	195	179	50	0	424
	Cum. % toward planned total (Net)	28.5%	11.3%	58%		43%
	Avg. Gross Demand Reduction Per Participant (kW)	3.6	0.4	2.5	73.6	2.4
	Avg. Net Demand Reduction Per Participant (kW)	3.5	0.3	2.4	39.9	1.7
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$405	\$41	\$257	\$1,968	\$154
	Cum. \$Admin. per Cum. kWh (Gross)	\$0.01	\$0.01	\$0.01	\$0.00	\$0.01
	Cum. \$Admin. per Cum. kW (Gross)	\$114	\$106	\$101	\$27	\$63
	Cum. \$EM&V per Cum Total Costs (\$)	12.2%	4.5%	7.2%	7.0%	8.4%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. A participant is a single unit that has been installed and rebated. A unique account number may represent multiple participants if that account had multiple units installed and rebated.

B.8.2 2017 Monthly Indicator Tables

NC - Non-Residential Energy Audit Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2014-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program Total	
O&M (\$)	Direct Relate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$851	\$1,431	\$1,286	\$80	\$0	\$133	\$0	\$0	\$0	\$0	\$0	\$154	\$3,936	\$16,675	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	112%	299%	467%	478%	478%	495%	495%	495%	495%	495%	495%	515%	515%	127%	
Audits	Total (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	111	
Participants ¹	Total (Gross)	0	1	1	0	0	0	0	0	0	0	0	0	2	108	
	Planned (Gross)	0	0	0	0	0	0	0	0	0	0	0	0	0	122	
	Variance	0	1	1	0	0	0	0	0	0	0	0	0	2	-14	
	Cum % toward planned total (Gross)														89%	
Installed kWh/year	Total (Gross)	364,902	339,129	121,809	0	0	0	0	0	0	0	0	0	825,840	1,817,756	
	Attribution Rate weighted by Measure	76%	75%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	76%	89%	
	Realization Rate weighted by Measure	79%	79%	79%	100%	100%	100%	100%	100%	100%	100%	100%	100%	79%	85%	
	Adjusted (Net) by Realization Rate and Attribution Rate	218,089	201,318.78	72,310.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	491,719	1,386,517	
	Planned (Net)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,243,824	
	Cum. % toward planned total (Net)														62%	
	Avg. Gross Savings Per Participant (kWh/yr)		339,129	121,809										412,920	16,831	
	Avg. Net Savings Per Participant (kWh/yr)		201,319	72,310										245,859	12,838	
Installed kW	Total (Gross)	65	61	22	0	0	0	0	0	0	0	0	0	147	264	
	Attribution Rate weighted by Measure	76%	75%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	76%	86%	
	Realization Rate weighted by Measure	79%	79%	79%	100%	100%	100%	100%	100%	100%	100%	100%	100%	79%	83%	
	Adjusted kW (Net)	35	33	12	0	0	0	0	0	0	0	0	0	80	184	
	Planned (Net)	0	0	0	0	0	0	0	0	0	0	0	0	0	424	
	Cum. % toward planned total (Net)														43%	
	Avg. Gross Demand Reduction Per Participant (kW)		60.6	21.8										73.6	2.4	
	Avg. Net Demand Reduction Per Participant (kW)		32.8	11.8										39.9	1.7	
Program Performance	Cum. SAdmin. per Cum. Participant (Gross)		\$2,283	\$1,784	\$1,824	\$1,824	\$1,891	\$1,891	\$1,891	\$1,891	\$1,891	\$1,891	\$1,968	\$1,968	\$154	
	Cum. SAdmin. per Cum. kWh (Gross)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01	
	Cum. SAdmin. per Cum. kW (Gross)	\$13	\$18	\$24	\$25	\$25	\$26	\$26	\$26	\$26	\$26	\$26	\$27	\$27	\$63	
	Cum. SEM&V per Cum Total Costs (\$)	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	7.0%	7.0%	8.4%	
	Cum. SRebate per Cum. Participant (Gross)															

B.9 North Carolina Non-residential Lighting Systems and Controls Program 2015-2017

B.9.1 2015-2017 Annual Indicator Tables

NC- Non-Residential Lighting Systems & Controls Program		2015	2016	2017	2015-2017
Category	Indicator	Total	Total ²	Total	Program Total
O&M (\$)	Direct Rebate				
O&M (\$)	Direct Implementation				
O&M (\$)	Direct EM&V				
O&M (\$)	Indirect Other (Administrative)	\$3,511	\$11,956	\$9,940	\$25,407
Costs (\$)	Total				
Costs (\$)	Planned				
Costs (\$)	Variance				
	Cum. % toward planned total	34%	109%	73%	72%
Participants ¹	Total (Gross)	13	43	23	79
	Planned (Gross)	96	102	104	302
	Variance	-83	-59	-81	-223
	Cum % toward planned total (Gross)	14%	42%	22%	26%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	564,326	3,333,527	1,738,121	5,635,974
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	564,326	3,333,527	1,738,121	5,635,974
70%	Net-To-Gross Adjustment (kWh/yr)	-169,298	-1,000,058	-521,436	-1,690,792
	Net Adjusted Savings (kWh/yr)	395,028	2,333,469	1,216,685	3,945,182
	Planned Net Savings (kWh/yr)	1,752,864	1,619,973	2,220,165	5,593,002
	Cum. % Toward Net Planned Savings (kWh/yr)	23%	144%	55%	71%
	Avg. Gross Savings Per Participant (kWh/yr)	43,410	77,524	75,570	71,341
	Avg. Net Savings Per Participant (kWh/yr)	30,387	54,267	52,899	49,939
Installed kW	Total Gross Demand Reduction (kW)	105	743	335	1,182
100%	Realization Rate Adjustment (kW)	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	105	743	335	1,182
70%	Net-To-Gross Adjustment (kW)	-31	-223	-100	-355
	Net Adjusted Demand Reduction (kW)	73	520	234	828
	Planned Net Demand Reduction (kW)	490	275	367	1,132
	Cum. % Toward Net Planned Demand Reduction (kW)	15%	189%	64%	73%
	Avg. Gross Demand Reduction Per Participant (kW)	8	17	15	15
	Avg. Net Demand Reduction Per Participant (kW)	6	12	10	10
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$270	\$278	\$432	\$322
	Cum. \$Admin. per Cum. kWh/year (Gross)	\$0.01	\$0.00	\$0	\$0.00
	Cum. \$Admin. per Cum. kW (Gross)	\$34	\$16	\$30	\$21
	Cum. \$EM&V per Cum Total Costs (\$)	6%	2%	3%	3%
	Cum. \$Rebate per Cum. Participant (Gross)				

1. A participant is a unique account number.
2. The 2016 total gross deemed savings values reported in this table differs from values in the May 1, 2017 EM&V report, and have been refiled with the Commission. The adjustments totaled -481,137 kWh/year and 26 kW for 2016 reported savings. The adjustments accounts for corrections to STEP Manual version 7.0.0 issued on May 1, 2017, in section 9.1.1. The adjustment was to waste heat factors (WHFe and WHFd) applied to lighting fixtures installed in 2016, where the program participant building HVAC systems was assumed to be heat pump heating and cooling systems, rather than the previous assumption of AC cool and non-electric heat systems. This adjustment was made in response to requests by the North Carolina Public Staff Utilities Commission Re: Docket No. E-22, Sub 545, on October 23, 2017. It is reflected in STEP Manual version 8.0.0 in this EM&V report.

B.9.2 2017 Monthly Indicator Tables

NC-Non-Residential Lighting Systems & Controls Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2015-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program Total
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	\$640	\$267	\$702	\$1,426	\$2,513	\$224	\$156	\$831	\$2,323	\$293	\$257	\$309	\$9,940	\$25,407
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	5%	7%	12%	22%	41%	42%	43%	49%	66%	69%	70%	73%	73%	72%
Participants ¹	Total (Gross)	1	1	2	5	6	0	0	1	3	3	1	0	23	79
	Planned (Gross)	9	9	9	9	9	9	9	9	8	8	8	8	104	302
	Variance	-8	-8	-7	-4	-3	-9	-9	-8	-5	-5	-7	-8	-81	-223
	Cum. % toward planned total (Gross)	1%	2%	4%	9%	14%	14%	14%	15%	18%	21%	22%	22%	22%	26%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	74,264	49,242	162,450	282,758	514,284	0	0	129,587	480,559	25,254	18,985	738	1,738,121	5,635,974
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	74,264	49,242	162,450	282,758	514,284	0	0	129,587	480,559	25,254	18,985	738	1,738,121	5,635,974
70%	Net-To-Gross Adjustment (kWh/yr)	-22,279	-14,773	-48,735	-84,827	-154,285	0	0	-38,876	-144,168	-7,576	-5,695	-221	-521,436	-1,690,792
	Net Adjusted Savings (kWh/yr)	51,985	34,470	113,715	197,931	359,999	0	0	90,711	336,391	17,678	13,289	516	1,216,685	3,945,182
	Planned Net Savings (kWh/yr)	185,014	185,014	185,014	185,014	185,014	185,014	185,014	185,014	185,014	185,014	185,014	185,014	2,220,165	5,593,002
	Cum. % Toward Net Planned Savings (kWh/yr)	2%	4%	9%	18%	34%	34%	34%	38%	53%	54%	55%	55%	55%	71%
	Avg. Gross Savings Per Participant (kWh/yr)	74,264	49,242	81,225	56,552	85,714	N/A	N/A	129,587	160,186	8,418	18,985	N/A	75,570	71,341
	Avg. Net Savings Per Participant (kWh/yr)	51,985	34,470	56,858	39,586	60,000	N/A	N/A	90,711	112,130	5,893	13,289	N/A	52,899	49,939
Installed kW	Total Gross Demand Reduction (kW)	0	0	36	55	116	0	0	22	94	7	4	0	335	1,182
100%	Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	0	0	36	55	116	0	0	22	94	7	4	0	335	1,182
70%	Net-To-Gross Adjustment (kW)	0	0	-11	-17	-35	0	0	-7	-28	-2	-1	0	-100	-355
	Net Adjusted Demand Reduction (kW)	0	0	25	39	81	0	0	15	66	5	3	0	234	828
	Planned Net Demand Reduction (kW)	31	31	31	31	31	31	31	31	31	31	31	31	367	1,132
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	7%	17%	40%	40%	40%	44%	62%	63%	64%	64%	64%	73%
	Avg. Gross Demand Reduction Per Participant (kW)	0	0	18	11	19	N/A	N/A	22	31	2	4	N/A	15	15
	Avg. Net Demand Reduction Per Participant (kW)	0	0	13	8	14	N/A	N/A	15	22	2	3	N/A	10	10
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$640	\$453	\$402	\$337	\$370	\$385	\$395	\$422	\$478	\$426	\$419	\$432	\$432	\$322
	Cum. \$Admin. per Cum. kWh/year (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00
	Cum. \$Admin. per Cum. kW (Gross)	N/A	N/A	\$44	\$33	\$27	\$28	\$29	\$29	\$28	\$28	\$29	\$30	\$30	\$21
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	2%	2%	2%	1%	1%	1%	3%	3%	3%
	Cum. \$Rebate per Cum. Participant (Gross)														

B.10 North Carolina Non-residential Heating and Cooling Efficiency Program 2015-2017

B.10.1 2015-2017 Annual Indicator Tables

NC- Non-Residential Heating & Cooling Efficiency Program		2015	2016	2017	2015-2017
Category	Indicator	Total	Total ²	Total	Program Total
O&M (\$)	Direct Rebate				
O&M (\$)	Direct Implementation				
O&M (\$)	Direct EM&V				
O&M (\$)	Indirect Other (Administrative)	\$1,360	\$1,610	\$2,353	\$5,323
Costs (\$)	Total				
Costs (\$)	Planned				
Costs (\$)	Variance				
	Cum. % toward planned total	32%	44%	49%	42%
Participants ¹	Total (Gross)	3	6	3	12
	Planned (Gross)	48	52	53	153
	Variance	-45	-46	-50	-141
	Cum % toward planned total (Gross)	6%	12%	6%	8%
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	91,144	289,500	82,971	463,615
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	91,144	289,500	82,971	463,615
70%	Net-To-Gross Adjustment (kWh/yr)	-27,343	-86,850	-24,891	-139,085
	Net Adjusted Savings (kWh/yr)	63,801	202,650	58,080	324,531
	Planned Net Savings (kWh/yr)	606,768	1,619,973	2,563,872	4,790,614
	Cum. % Toward Net Planned Savings (kWh/yr)	11%	13%	2%	7%
	Avg. Gross Savings Per Participant (kWh/yr)	30,381	48,250	27,657	38,635
	Avg. Net Savings Per Participant (kWh/yr)	21,267	33,775	19,360	27,044
Installed kW	Total Gross Demand Reduction (kW)	27	93	-40	80
100%	Realization Rate Adjustment (kW)	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction(kW)	27	93	-40	80
70%	Net-To-Gross Adjustment (kW)	-8	-28	12	-24
	Net Adjusted Demand Reduction (kW)	19	65	-28	56
	Planned Net Demand Reduction (kW)	154	275	1,042	1,471
	Cum. % Toward Net Planned Demand Reduction (kW)	12%	24%	-3%	4%
	Avg. Gross Demand Reduction Per Participant (kW)	9	16	-13	7
	Avg. Net Demand Reduction Per Participant (kW)	6	11	-9	5
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$453	\$268	\$784	\$444
	Cum. \$Admin. per Cum. kWh/year (Gross)	\$0.01	\$0.01	\$0.03	\$0.01
	Cum. \$Admin. per Cum. kW (Gross)	\$51	\$17	-\$58	\$67
	Cum. \$EM&V per Cum Total Costs (\$)	14%	15%	15%	14%
	Cum. \$Rebate per Cum. Participant (Gross)				

1. A participant is a unique account number.
2. The 2016 total gross deemed savings values reported in this table differs from values in the May 1, 2017 EM&V report, and have been refiled with the Commission. The adjustments totaled -22,904 kWh/year and 0 kW for 2016 reported savings. The adjustments accounts for corrections to STEP Manual version 7.0.0 issued on May 1, 2017, in section 10. The adjustment was made to full load heating hours (FLHheat) in Tables 90 and 91 to be consistent with those in the Mid-Atlantic TRM v 6, in response to requests by the North Carolina Public Staff Utilities Commission Re: Docket No. E-22, Sub 545, on October 23, 2017. This affected multiple non-residential HVAC measures (e.g. heat pumps, variable refrigerant flow, mini split systems) that reference Table 90 and 91, in multiple non-residential programs. This adjustment is reflected in STEP Manual version 8.0.0 in this EM&V report.

B.10.2 2017 Monthly Indicator Tables

NC- Non-Residential Heating & Cooling Efficiency Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2015-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program Total	
O&M (\$)	Direct Relate															
O&M (\$)	Direct Implementation															
O&M (\$)	Direct EM&V															
O&M (\$)	Indirect Other (Administrative)	\$85	\$110	\$110	\$75	\$913	\$316	\$38	\$89	\$151	\$89	\$97	\$281	\$2,353	\$5,323	
Costs (\$)	Total															
Costs (\$)	Planned															
Costs (\$)	Variance															
	Cum. % toward planned total	2%	4%	6%	8%	27%	33%	34%	36%	39%	41%	43%	49%	49%	42%	
Participants ¹	Total (Gross)	0	0	0	0	1	1	0	0	1	0	0	0	3	12	
	Planned (Gross)	5	5	4	4	4	4	4	4	4	4	4	4	53	153	
	Variance	-5	-5	-4	-4	-3	-3	-4	-4	-3	-4	-4	-4	-50	-141	
	Cum % toward planned total (Gross)	0%	0%	0%	0%	2%	4%	4%	4%	6%	6%	6%	6%	6%	8%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	0	0	0	74,030	420	0	0	8,521	0	0	0	82,971	463,615	
	100% Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Realization Rate Adjusted Savings (kWh/yr)	0	0	0	0	74,030	420	0	0	8,521	0	0	0	82,971	463,615	
	70% Net-To-Gross Adjustment (kWh/yr)	0	0	0	0	-22,209	-126	0	0	-2,556	0	0	0	-24,891	-139,085	
	Net Adjusted Savings (kWh/yr)	0	0	0	0	51,821	294	0	0	5,965	0	0	0	58,080	324,531	
	Planned Net Savings (kWh/yr)	213,656	213,656	213,656	213,656	213,656	213,656	213,656	213,656	213,656	213,656	213,656	213,656	2,563,872	4,790,614	
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	
	Avg. Gross Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	74,030	420	N/A	N/A	8,521	N/A	N/A	N/A	27,657	38,635	
	Avg. Net Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	51,821	294	N/A	N/A	5,965	N/A	N/A	N/A	19,360	27,044	
Installed kW	Total Gross Demand Reduction (kW)	0	0	0	0	-39	0	0	0	-1	0	0	0	-40	80	
	100% Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Realization Rate Adjusted Gross Demand Reduction(kW)	0	0	0	0	-39	0	0	0	-1	0	0	0	-40	80	
	70% Net-To-Gross Adjustment (kW)	0	0	0	0.0	12	0	0	0	0	0	0	0	12	-24	
	Net Adjusted Demand Reduction (kW)	0	0	0	0.0	-27	0	0	0	-1	0	0	0	-28	56	
	Planned Net Demand Reduction (kW)	87	87	87	87	87	87	87	87	87	87	87	87	1,042	1,471	
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	0%	0%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	4%	
	Avg. Gross Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	-39	0	N/A	N/A	-1	N/A	N/A	N/A	-13	7	
	Avg. Net Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	-27	0	N/A	N/A	-1	N/A	N/A	N/A	-9	5	
Program Performance	Cum. SAdmin. per Cum. Participant (Gross)	N/A	N/A	N/A	N/A	\$1,291	\$804	\$822	\$867	\$628	\$658	\$690	\$784	\$784	\$444	
	Cum. SAdmin. per Cum. kWh/year (Gross)	N/A	N/A	N/A	N/A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.03	\$0.01	
	Cum. SAdmin. per Cum. kW (Gross)	N/A	N/A	N/A	N/A	-\$33	-\$41	-\$42	-\$45	-\$47	-\$49	-\$51	-\$58	-\$58	\$67	
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	10%	10%	10%	9%	8%	8%	15%	15%	14%	
	Cum. \$Rebate per Cum. Participant (Gross)															

B.11 North Carolina Non-residential Window Film Program 2015-2017

B.11.1 2016-2017 Annual Indicator Tables

NC- Non-Residential Window Film Program		2015	2016	2017	2015-2017
Category	Indicator	Total	Total	Total	Program Total
O&M (\$)	Direct Rebate				
O&M (\$)	Direct Implementation				
O&M (\$)	Direct EM&V				
O&M (\$)	Indirect Other (Administrative)	\$851	\$799	\$870	\$2,520
Costs (\$)	Total				
Costs (\$)	Planned				
Costs (\$)	Variance				
	Cum. % toward planned total	30%	23%	17%	23%
Participants ¹	Total Participants	0	0	0	0
	Total Square Feet	0	0	0	0
	Planned Square Feet	48,000	76,742	91,659	216,401
	Variance	-48,000	-76,742	-91,659	-216,401
	Cum % toward planned total	0%	0%	0%	0%
Square feet	Total Square Feet	0	0	0	0
	North Facing	0	0	0	0
	East Facing	0	0	0	0
	West Facing	0	0	0	0
	South Facing	0	0	0	0
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	0	0	0
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	0	0	0	0
80%	Net-To-Gross Adjustment (kWh/yr)	0	0	0	0
	Net Adjusted Savings (kWh/yr)	0	0	0	0
	Planned Net Savings (kWh/yr)	864	1,064,075	1,016,658	2,081,597
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	0%	0%	0%
	Avg. Gross Savings Per Participant (kWh/yr)			N/A	N/A
	Avg. Gross Savings Per Square Foot (kWh/yr)			N/A	N/A
	Avg. Net Savings Per Participant (kWh/yr)			N/A	N/A
	Avg. Net Savings Per Square Foot (kWh/yr)			N/A	N/A
Installed kW	Total Gross Demand Reduction (kW)	0	0	0	0
100%	Realization Rate Adjustment (kW)	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	0	0	0	0
80%	Net-To-Gross Adjustment (kW)	0	0	0	0
	Net Adjusted Demand Reduction (kW)	0	0	0	0
	Planned Net Demand Reduction (kW)	0	974	915	1,889
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	0%	0%
	Avg. Gross Demand Reduction Per Participant (kW)			N/A	N/A
	Avg. Gross Demand Reduction Per Square Foot (kW)			N/A	N/A
	Avg. Net Demand Reduction Per Participant (kW)			N/A	N/A
	Avg. Net Demand Reduction Per Square Foot (kW)			N/A	N/A
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)			N/A	N/A
	Cum. \$Admin. per Cum. kWh/year (Gross)			N/A	N/A
	Cum. \$Admin. per Cum. kW (Gross)			N/A	N/A
	Cum. \$EM&V per Cum Total Costs (\$)	18%	29%	25%	24%
	Cum. \$Rebate per Cum. Participant (Gross)				

1. A participant is a unique account number.

B.11.2 2017 Monthly Indicator Tables

NC-Non-Residential Window Film Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2015-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Program Total
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	\$71	\$69	\$85	\$61	\$59	\$135	\$36	\$40	\$40	\$40	\$40	\$194	\$870	\$2,520
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	1%	3%	5%	6%	7%	10%	10%	11%	12%	13%	14%	17%	17%	23%
Participants ¹	Total Participants	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Square Feet	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Planned Square Feet	7,639	7,639	7,639	7,638	7,638	7,638	7,638	7,638	7,638	7,638	7,638	7,638	91,659	216,401
	Variance	-7,639	-7,639	-7,639	-7,638	-7,638	-7,638	-7,638	-7,638	-7,638	-7,638	-7,638	-7,638	-91,659	-216,401
	Cum. % toward planned total	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Square feet	Total Square Feet	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	North Facing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	East Facing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	West Facing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	South Facing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100%	Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80%	Net-To-Gross Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Adjusted Savings (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Planned Net Savings (kWh/yr)	84,722	84,722	84,722	84,722	84,722	84,722	84,722	84,722	84,722	84,722	84,722	84,722	1,016,658	2,081,597
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Avg. Gross Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Gross Savings Per Square Foot (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Net Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Net Savings Per Square Foot (kWh/yr)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Installed kW	Total Gross Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100%	Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Realization Rate Adjusted Gross Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80%	Net-To-Gross Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Adjusted Demand Reduction (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Planned Net Demand Reduction (kW)	76	76	76	76	76	76	76	76	76	76	76	76	915	1,889
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Avg. Gross Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Gross Demand Reduction Per Square Foot (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Net Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Avg. Net Demand Reduction Per Square Foot (kW)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Program Performance	Cum. SAdmin. per Cum. Participant (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Cum. SAdmin. per Cum. kWh/year (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Cum. SAdmin. per Cum. kW (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Cum. SEM&V per Cum Total Costs (\$)	0%	0%	0%	0%	0%	15%	14%	13%	12%	12%	11%	25%	25%	24%
	Cum. SRebate per Cum. Participant (Gross)														

B.12 North Carolina Non-residential Small Business Improvement Program 2017

B.12.1 2017 Monthly Indicator Tables

NC- Small Business Improvement Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Category	Indicator	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	\$222	\$210	\$206	\$178	\$178	\$296	\$253	\$211	\$186	\$266	\$186	\$1,478	\$3,870	
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	1.6%	3.1%	4.6%	5.9%	7.2%	9.3%	11.2%	12.7%	14.1%	16.0%	17.3%	28.0%	28.0%	
Participants ¹	Total (Gross)	0	0	0	0	0	1	1	0	0	0	0	5	7	
	Planned (Gross)	4	4	4	4	4	4	3	3	3	3	3	3	42	
	Variance	4	4	4	4	4	3	2	3	3	3	3	-2	-35	
	Cum % toward planned total (Gross)	0%	0%	0%	0%	0%	2%	5%	5%	5%	5%	5%	17%	16.7%	
Installed kWh/year	Total Gross Deemed Savings (kWh/yr)	0	0	0	0	0	13,539	51,378	0	0	0	0	101,589	166,507	
	100% Realization Rate Adjustment (kWh/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Realization Rate Adjusted Savings (kWh/yr)	0	0	0	0	0	13,539	51,378	0	0	0	0	101,589	166,507	
	93% Net-To-Gross Adjustment (kWh/yr)	0	0	0	0	0	-948	-3,596	0	0	0	0	-7,111	-11,655	
	Net Adjusted Savings (kWh/yr)	0	0	0	0	0	12,591	47,782	0	0	0	0	94,478	154,851	
	Planned Net Savings (kWh/yr)	24,019	24,019	24,019	24,019	24,019	24,019	24,019	24,019	24,019	24,019	24,019	24,019	288,232	
	Cum. % Toward Net Planned Savings (kWh/yr)	0%	0%	0%	0%	0%	4%	21%	21%	21%	21%	21%	54%	54%	
	Avg. Gross Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	13,539	51,378	N/A	N/A	N/A	N/A	N/A	20,318	23,787
	Avg. Net Savings Per Participant (kWh/yr)	N/A	N/A	N/A	N/A	N/A	12,591	47,782	N/A	N/A	N/A	N/A	N/A	18,896	22,122
Installed kW	Total Gross Demand Reduction (kW)	0	0	0	0	0	0	7	0	0	0	0	25	33	
	100% Realization Rate Adjustment (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Realization Rate Adjusted Gross Demand Reduction (kW)	0	0	0	0	0	0	7	0	0	0	0	25	33	
	93% Net-To-Gross Adjustment (kW)	0	0	0	0	0	0	-1	0	0	0	0	-2	-2	
	Net Adjusted Demand Reduction (kW)	0	0	0	0	0	0	7	0	0	0	0	24	30	
	Planned Net Demand Reduction (kW)	4	4	4	4	4	4	4	4	4	4	4	4	44	
	Cum. % Toward Net Planned Demand Reduction (kW)	0%	0%	0%	0%	0%	0%	15%	15%	15%	15%	15%	69%	69.4%	
	Avg. Gross Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	-	7.2	N/A	N/A	N/A	N/A	N/A	5.1	4.7
	Avg. Net Demand Reduction Per Participant (kW)	N/A	N/A	N/A	N/A	N/A	-	6.7	N/A	N/A	N/A	N/A	N/A	4.7	4.3
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	N/A	N/A	N/A	N/A	N/A	\$1,290	\$772	\$877	\$970	\$1,103	\$1,196	\$553	\$553	
	Cum. \$Admin. per Cum. kWh (Gross)	N/A	N/A	N/A	N/A	N/A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.02	
	Cum. \$Admin. per Cum. kWh (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	\$213	\$243	\$268	\$305	\$331	\$119	\$119	
	Cum. \$EM&V per Cum Total Costs (\$)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	7.4%	
	Cum. \$Rebate per Cum. Participant (Gross)														

1. A participant is a unique account number.

B.13 North Carolina Residential Air Conditioner Cycling Program 2011-2017

B.13.1 2011-2017 Annual Indicator Tables

NC - Residential AC Cycling Program		2011	2012	2013	2014	2015	2016	2017	2011-2017
Category	Indicator	Total	Total	Total	Total	Total	Total	Total	Program Total
O&M (\$)	Direct Rebate								
O&M (\$)	Direct Implementation								
O&M (\$)	Direct EM&V								
O&M (\$)	Indirect Other (Administrative)	\$20,344	\$16,948	\$28,964	\$13,341	\$6,734	\$7,646	\$9,349	\$103,325
Capital (\$)	Direct Implementation								
Costs (\$)	Total								
Costs (\$)	Planned								
Costs (\$)	Variance								
	Cum. % toward planned total	67%	87%	67%	72%	49%	51%	41%	63%
Participants	Total (Cumulative @ End of Month)	1,003	2,853	4,144	5,260	5,631	5,863	5,891	5,891
	Removals (Uninstalled) / Deactivations	-1	-260	-608	-1,082	-1,711	-2,143	-2,285	-2,285
	Opt-outs	9	1	1	1	4	13	1	8
	Adjusted Participants (Cum.)	993	2,592	3,535	4,177	3,916	3,707	3,605	3,598
0%	Net to gross adjustment (Cum.)	0	0	0	0	0	0	0	0
96%	In Service Rate Adjustment (Cum.)	-40	104	-141	-167	0	0	0	0
	Net Participation (Cum.)	953	2,489	3,394	4,010	3,916	3,707	3,605	3,598
	Planned (Cum.)	1,230	3,198	5,090	6,094	4,840	3,920	5,963	5,963
	Variance (Cum.)	-227	-345	-946	-834	791	1,943	-72	-2,365
	Cum % toward planned total (Net basis)	77%	78%	67%	66%	81%	95%	60%	74%
	Removal (Uninstalled) / Deactivation Rate	-0.02%	-0.8%	-1.03%	-1.06%	-1.30%	-0.94%	-0.33%	-0.86%
	Average % Opt-outs (rate)	0.9%	0.03%	0.02%	0.02%	0.09%	0.36%	0.03%	0.21%
	Realization Rate	111%	99%	78%	93%	100%	100%	100%	97%
	Connected Load kW	2,084	11,398	12,957	15,572	15,654	14,187	13,419	13,100
	Ex-Ante kW Estimated kW	1.00	1.09	0.95	0.78	0.71	0.97	0.68	0.87
	Connected Load per Participant (kW)	2.19	4.58	3.82	3.88	4.00	3.83	3.72	3.72
Installed kW	Peak Shaving Potential kW - Gross Participants	1,103	3,138	4,558	4,077	3,998	5,687	4,006	4,006
	Removed (Uninstalled) / Deactivated Peak Shaving Potential kW	-1	-286	-669	-839	-1,215	-2,079	-1,554	-1,554
	Less Opt-outs (kW)	10	1	1	1	3	13	1	5
	Dispatchable Peak Shaving Potential - Total kW	1,092	2,851	3,889	2,924	2,781	3,595	2,451	2,447
0%	Less Free Ridership Factor (Cum.)	0	0	0	0	0	0	0	0
96%	In Service Rate Adjustment (Cum.)	-44	114	-156	-117	0	0	0	0
	Adjustment for Realization Rate	115	16	-815	-211	0	0	0	0
	Net Demand (Cum.)	1,164	2,721	2,918	2,597	2,781	3,595	2,451	2,451
	Planned Demand (Cum.)	1,168	3,032	4,830	5,814	4,840	4,157	5,392	5,392
	Cum. % toward planned total (Net basis)	100%	90%	60%	45%	57%	86%	45%	45%
	Dispatchable Peak Shaving Potential kW per Participant	1.22	1.09	0.86	0.72	0.71	0.97	0.68	0.68
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$20	\$13	\$16	\$15	\$15	\$16	\$18	\$18
	Cum. \$Admin. per Cum. kW (Gross)	\$18	\$12	\$15	\$21	\$22	\$17	\$26	\$26
	Cum. \$EM&V per Cum Total Costs (\$)	1.4%	0.7%	0.9%	1.0%	1.1%	1.9%	2.0%	2.0%
	Cum. \$Rebate per Cum. Participant (Gross)								

B.13.2 2017 Monthly Indicator Tables

NC - Residential AC Cycling Program		2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2011-2017
Category	Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Program Total
O&M (\$)	Direct Rebate														
O&M (\$)	Direct Implementation														
O&M (\$)	Direct EM&V														
O&M (\$)	Indirect Other (Administrative)	-\$137	\$378	\$264	\$354	\$264	\$2,019	\$1,906	\$1,897	\$1,715	\$292	\$235	\$162	\$9,349	\$103,325
Capital (\$)	Direct Implementation														
Costs (\$)	Total														
Costs (\$)	Planned														
Costs (\$)	Variance														
	Cum. % toward planned total	-1%	1%	2%	4%	5%	14%	22%	30%	38%	39%	40%	41%	41%	63%
Participants	Total (Cumulative @ End of Month)	5,865	5,865	5,865	5,865	5,865	5,867	5,876	5,867	5,871	5,875	5,879	5,891	5,891	5,891
	Removals (Uninstalled) / Deactivations	-2,148	-2,151	-2,151	-2,156	-2,167	-2,181	-2,208	-2,261	-2,274	-2,280	-2,285	-2,285	-2,285	-2,285
	Opt-outs	1	1	1	1	1	1	1	1	1	1	1	1	1	8
	Adjusted Participants (Cum.)	3,716	3,713	3,713	3,708	3,697	3,685	3,667	3,605	3,596	3,594	3,593	3,605	3,605	3,598
	0% Net to gross adjustment (Cum.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	96% In Service Rate Adjustment (Cum.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Participation (Cum.)	3,716	3,713	3,713	3,708	3,697	3,685	3,667	3,605	3,596	3,594	3,593	3,605	3,605	3,598
	Planned (Cum.)	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963	5,963
	Variance (Cum.)	-98	-98	-98	-98	-98	-96	-87	-96	-92	-88	-84	-72	-72	-2,365
	Cum % toward planned total (Net basis)	62.3%	62.3%	62.3%	62.2%	62.0%	61.8%	61.5%	60.5%	60.3%	60.3%	60.3%	60.5%	60%	74%
	Removal (Uninstalled) / Deactivation Rate	-0.13%	-0.08%	0.00%	-0.13%	-0.30%	-0.38%	-0.74%	-1.47%	-0.36%	-0.17%	-0.14%	0.00%	-0.33%	-0.86%
	Average % Opt-outs (rate)	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.21%
	Realization Rate	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	97%
Installed kW	Connected Load kW	13,672	13,672	13,656	13,618	13,582	13,472	13,263	13,213	13,210	13,209	13,222	13,246	13,419	13,100
	Ex-Ante kW Estimated kW	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.87
	Connected Load per Participant (kW)	3.68	3.68	3.68	3.67	3.67	3.66	3.62	3.67	3.67	3.68	3.68	3.67	3.72	3.72
	Peak Shaving Potential kW - Gross Participants	3,988	3,988	3,988	3,988	3,988	3,990	3,996	3,990	3,992	3,995	3,998	4,006	4,006	4,006
	Removed (Uninstalled) / Deactivated Peak Shaving Potential kW	-1,461	-1,463	-1,463	-1,466	-1,474	-1,483	-1,501	-1,537	-1,546	-1,550	-1,554	-1,554	-1,554	-1,554
	Less Opt-outs (kW)	1	1	1	1	1	1	1	1	1	1	1	1	1	5
	Dispatchable Peak Shaving Potential - Total kW	2,527	2,525	2,525	2,521	2,514	2,506	2,493	2,451	2,445	2,444	2,443	2,451	2,451	2,447
	0% Less Free Ridership Factor (Cum.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	96% In Service Rate Adjustment (Cum.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Adjustment for Realization Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net Demand (Cum.)	2,527	2,525	2,525	2,521	2,514	2,506	2,493	2,451	2,445	2,444	2,443	2,451	2,451	2,451
	Planned Demand (Cum.)	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392	5,392
	Cum. % toward planned total (Net basis)	47%	47%	47%	47%	47%	46%	46%	45%	45%	45%	45%	45%	45%	45%
	Dispatchable Peak Shaving Potential kW per Participant	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$16	\$16	\$16	\$16	\$16	\$17	\$17	\$17	\$17	\$18	\$18	\$18	\$18	\$18
	Cum. \$Admin. per Cum. kW (Gross)	\$24	\$24	\$24	\$24	\$24	\$24	\$25	\$25	\$26	\$26	\$26	\$26	\$26	\$26
	Cum. SEM&V per Cum Total Costs (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2.0%	2.0%
	Cum. \$Rebate per Cum. Participant (Gross)														

B.14 North Carolina Residential Low-income Program 2011-2015

		North Carolina					
		2011	2012	2013	2014	2015	Total (2011-2015)
O&M (\$)	Direct Rebate						
O&M (\$)	Direct Implementation						
O&M (\$)	Direct EM&V						
O&M (\$)	Indirect Other (Administrative)	\$20,601	\$22,730	\$15,525	\$9,060	\$24,980	\$92,895
Costs (\$)	Total						
Costs (\$)	Planned						
Costs (\$)	Variance						
	Cum. % toward planned total	87.6%	35.7%	71.7%	90.0%	76.8%	69.2%
Participants	Total (Gross)	207	156	120	120	653	1,256
	Planned (Gross)	325	519	33	132	600	1,609
	Variance	-118	-363	87	-12	53	-353
	Cum % toward planned total (Gross)	63.7%	30.1%	363.6%	90.9%	108.8%	78.1%
kWh	Total Gross Deemed Savings	200,471	183,162	106,895	102,596	537,503	1,130,626
62%	Realization Rate Adjustment	-106,249	-97,076	-26,724	-38,986	-204,251	-473,286
	Adjusted Gross Savings	94,221	86,086	80,171	63,609	333,252	657,340
94%	Net-To-Gross Adjustment	-6,030	-5,510	-5,131	-4,071	-21,328	-42,070
	Net Adjusted Savings	88,191	80,576	75,040	59,538	311,924	615,270
	Planned Savings (Net)	134,347	195,653	85,480	106,694	1,170,600	1,692,774
	Cum. % Toward Planned Savings (Net)	65.6%	41.2%	87.8%	55.8%	26.6%	36.3%
	Avg. Savings Per Participant (Net)	426	517	625	496	478	490
Installed kW	Total Gross Deemed Demand	61	36	27	23	128	275
62%	Realization Rate Adjustment	-32	-19	-7	-9	-49	-115
	Adjusted Gross Demand	29	17	20	14	79	159
94%	Net-To-Gross Adjustment	-2	-1	-1	-1	-5	-10
	Net Adjusted Demand	27	16	19	13	74	149
	Planned Demand (Net)	23	38	16	16	55	148
	Cum. % Toward Planned Demand (Net)	116.6%	41.9%	117.4%	83.2%	135.7%	100.9%
	Avg. Demand Per Participant (Net)	0.1	0.1	0.2	0.1	0.1	0.1
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)	\$100	\$146	\$129	\$76	\$38	\$74
	Cum. \$Admin. per Cum. kWh (Gross)	\$0.10	\$0.12	\$0.15	\$0.09	\$0.05	\$0.08
	Cum. \$Admin. per Cum. kW (Gross)	\$338	\$627	\$580	\$395	\$196	\$338
	Cum. \$EM&V per Cum Total Costs (\$)	2.3%	2.7%	4.7%	3.0%	0.4%	1.7%
	Cum. \$Rebate per Cum. Participant (Gross)						

B.15 North Carolina Residential Lighting Program 2011-2012⁵

		North Carolina		
		2011	2012	Total (2011-2012)
O&M (\$)	Direct Rebate			
O&M (\$)	Direct Implementation			
O&M (\$)	Direct EM&V			
O&M (\$)	Indirect Other (Administrative)	\$5,847	\$1,066	\$6,913
Costs (\$)	Total			
Costs (\$)	Planned			
Costs (\$)	Variance			
	Cum. % toward planned total	61.6%	46.7%	59.5%
Participants	Total bulbs (Gross)	37,120	0	37,120
	Planned (Gross)	127,975	0	127,975
	Variance	-90,855	0	-90,855
	Cum % toward planned total (Gross)	29.0%	0.0%	29.0%
kWh	Total Gross Deemed Savings	1,882,829	0	1,882,829
65%	Realization Rate Adjustment	-301,253	0	-301,253
84%	Adjusted Gross Savings	1,581,577	0	1,581,577
	Net Adjusted Savings	1,028,025	0	1,028,025
	Planned Savings (Net)	3,585,903	0	3,585,903
	Cum. % Toward Planned Savings (Net)	28.7%	0.0%	28.7%
	Avg. Savings Per Participant (Net)	28	0	28
kW	Total Gross Deemed Demand	205	0	205
65%	Realization Rate Adjustment	-33	0	-33
84%	Adjusted Gross Demand	172	0	172
	Net Adjusted Demand	112	0	112
	Planned Demand (Net)	298	0	298
	Cum. % Toward Planned Demand (Net)	37.5%	0.0%	37.5%
	Avg. Demand Per Participant (Net)	0.003	0.000	0.003
Program	Cum. \$Admin. per Cum. Bulb (Gross)	\$0.16		\$0.19
Performance	Cum. \$Admin. per Cum. kWh (Gross)	\$0.00		\$0.00
	Cum. \$Admin. per Cum. kW (Gross)	\$29		\$34
	Cum. \$EM&V per Cum Total Costs (\$)	3.7%	17.4%	5.2%
	Cum. \$Rebate per Cum. Bulb (Gross)			

⁵ Program closed end of 2011.

B.16 North Carolina Commercial Lighting Program 2011-2014

		North Carolina				
		2011	2012	2013	2014	Total (2011-2014)
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$16,336	\$7,585	\$5,209	\$6,628	\$35,758
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	73.4%	15.6%	24.8%	129.7%	38.7%
Participants	Total (Gross)	1	25	0	21	47
	Planned (Gross)	2	9	0	4	15
	Variance	-1	16	0	17	32
	Cum % toward planned total (Gross)	50.0%	277.8%	0.0%	525.0%	313.3%
kWh	Total Gross Deemed Savings	1,787,400	409,819	0	895,657	3,092,876
178%	Realization Rate Adjustment	1,376,298	320,111	0	697,649	2,394,058
0%	Adjusted Gross Savings	3,163,699	729,930	0	1,593,306	5,486,934
50%	Net-To-Gross Adjustment	-1,581,849	-364,965	0	-796,653	-2,743,467
	Net Adjusted Savings	1,581,849	364,965	0	796,653	2,743,467
	Planned Savings (Net)	515,922	2,172,078	0	137,967	2,825,967
	Cum. % Toward Planned Savings (Net)	306.6%	16.8%	0.0%	577.4%	97.1%
	Avg. Savings Per Participant (Net)	1,581,849	14,599	0	37,936	58,372
kW	Total Gross Deemed Demand	682	110	0	235	1,027
50%	Realization Rate Adjustment	-14	-2	0	-5	-21
0%	Adjusted Gross Demand	668	108	0	231	1,006
0%	Net-To-Gross Adjustment	-334	-54	0	-115	-503
	Net Adjusted Demand	334	54	0	115	503
	Planned Demand (Net)	62	275	0	0	337
	Cum. % Toward Planned Demand (Net)	539%	20%	0%		149%
	Avg. Demand Per Participant (Net)	334	2	0	5	11
Program	Cum. \$Admin. per Cum. Participant (Gross)	\$16,336	\$303		\$316	\$761
Performance	Cum. \$Admin. per Cum. KWh (Gross)	\$0.01	\$0.02		\$0	\$0.01
	Cum. \$Admin. per Cum. KW (Gross)	\$24	\$69		\$28	\$35
	Cum. \$EM&V per Cum Total Costs (\$)	4.6%	2.2%	0.0%	14.9%	6.5%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. Realization rate is 177% January 1st through May 30th, 179% June 1st through September 30th, and 177% October 1st through December 31st.

B.17 North Carolina Commercial HVAC Program 2011-2013

NC- Commercial HVAC Program		2011	2012	2013	2014	2011-2014
Category	Indicator	Total	Total	Total	Total	Program Total
O&M (\$)	Direct Rebate					
O&M (\$)	Direct Implementation					
O&M (\$)	Direct EM&V					
O&M (\$)	Indirect Other (Administrative)	\$1,140	\$7,812	\$5,177	\$4,091	\$18,219
Costs (\$)	Total					
Costs (\$)	Planned					
Costs (\$)	Variance					
	Cum. % toward planned total	27.4%	71.2%	52.4%	78.9%	61.5%
Participants	Total (Gross)	0	4	0	0	4
	Planned (Gross)	2	11	0	5	18
	Variance	-2	-7	0	-5	-14
	Cum % toward planned total (Gross)	0.0%	36.4%		0.0%	22.2%
Installed kWh/year	Total Gross Deemed Savings	0	388,155	0	0	388,155
63.3%	Realization Rate Adjustment ¹	0	-142,453	0	0	-142,453
	Adjusted Gross Savings	0	245,702	0	0	245,702
45.0%	Net-To-Gross Adjustment	0	-135,136	0	0	-135,136
	Net Adjusted Savings	0	110,566	0	0	110,566
	Planned Savings (Net)	58,153	299,847	0	167,666	525,666
	Cum. % Toward Planned Savings (Net)	0.0%	36.9%		0.0%	21.0%
	Avg. Savings Per Participant (Net)		27,641			27,641
Installed kW	Total Gross Deemed Demand	0	73	0	0	73
97.0%	Realization Rate Adjustment	0.0	-2	0	0	-2
	Adjusted Gross Demand	0	71	0	0	71
45.0%	Net-To-Gross Adjustment	0	-39	0	0	-39
	Net Adjusted Demand	0	32	0	0	32
	Planned Demand (Net)	22	122	0	0	144
	Cum. % Toward Planned Demand (Net)	0.0%	26.2%			22.2%
	Avg. Demand Per Participant (Net)		8			8
Program Performance	Cum. \$Admin. per Cum. Participant (Gross)		\$1,953			\$4,555
	Cum. \$Admin. per Cum. kWh (Gross)		\$0.02			\$0.05
	Cum. \$Admin. per Cum. kW (Gross)		\$107			\$249
	Cum. \$EM&V per Cum Total Costs (\$)	81.6%	17.5%	0.0%	23.7%	20.1%
	Cum. \$Rebate per Cum. Participant (Gross)					

1. Realization rate is 63% January 1st through May 30th, 35% June 1st through September 30th, and 63% October 1st through December 31st.



C. GROSS CUMULATIVE PERFORMANCE INDICATOR TABLES FOR VIRGINIA AND NORTH CAROLINA

Appendix C.1 Residential Heat Pump Upgrade Program 2012 - 2017

PROGRAM: Residential Heat Pump Upgrade
DSM Phase II Program
Type: Energy Efficiency
Program Measure Life: 15.0 years

Table 1 Participation Program Participants								Table 1 Energy Savings Gross kWh							
Month	Year	VA		NC		System		Month	Year	VA		NC		System	
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)			VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)
		[A]	[-A retired]	[E] = Σ[A] + Σ[-A retired]	[C]	[-C retired]	[G] = Σ[C] + Σ[-C retired]								
October	2012	16		16	15			October	2012	3,417		3,417			3,417
November	2012	33		49	49			November	2012	6,826		10,244			10,244
December	2012	37		86	86			December	2012	6,377		16,621			16,621
January	2013	34		120	120			January	2013	4,859		21,479			21,479
February	2013	165		285	285			February	2013	28,816		50,295			50,295
March	2013	202		487	487			March	2013	34,445		84,740			84,740
April	2013	149		636	636			April	2013	24,175		108,915			108,915
May	2013	261		897	897			May	2013	44,920		153,835			153,835
June	2013	309		1,206	1,206			June	2013	52,727		206,562			206,562
July	2013	465		1,671	1,671			July	2013	80,429		286,990			286,990
August	2013	343		2,014	2,014			August	2013	56,622		343,612			343,612
September	2013	415		2,429	2,429			September	2013	70,495		414,108			414,108
October	2013	452		2,881	2,881			October	2013	69,869		483,977			483,977
November	2013	176		3,057	3,057			November	2013	30,779		514,756			514,756
December	2013	324		3,381	3,381			December	2013	57,339		572,095			572,095
January	2014	284		3,665	0		3,665	January	2014	44,016		616,112	0		616,112
February	2014	281		3,946	0		3,946	February	2014	40,377		656,489	0		656,489
March	2014	254		4,200	0		4,200	March	2014	38,899		695,388	0		695,388
April	2014	298		4,498	0		4,498	April	2014	46,218		741,605	0		741,605
May	2014	241		4,739	0		4,739	May	2014	34,718		776,323	0		776,323
June	2014	322		5,061	1		5,062	June	2014	49,271		825,594	330		825,924
July	2014	586		5,647	0		5,648	July	2014	63,943		889,537	0		889,867
August	2014	334		5,981	4		5,985	August	2014	38,350		927,887	537		928,754
September	2014	418		6,399	5		6,409	September	2014	46,188		974,075	837		975,779
October	2014	243		6,642	9		6,651	October	2014	27,948		1,002,023	767		1,004,495
November	2014	169		6,811	12		6,842	November	2014	18,038		1,020,061	1,496		1,024,029
December	2014	219		7,030	13		7,074	December	2014	24,284		1,044,345	2,070		1,050,383
January	2015	301		7,331	15		7,346	January	2015	16,285		1,060,631	2,013		1,068,681
February	2015	327		7,658	15		7,751	February	2015	17,549		1,078,179	3,274		1,089,504
March	2015	258		7,916	20		8,029	March	2015	12,676		1,090,856	428		1,102,609
April	2015	335		8,251	58		8,422	April	2015	14,244		1,105,100	2,635		1,119,488
May	2015	258		8,509	57		8,737	May	2015	13,679		1,118,780	2,502		1,135,669
June	2015	694		9,203	99		9,530	June	2015	32,176		1,150,956	2,970		1,170,814
July	2015	459		9,662	83		10,072	July	2015	22,577		1,173,533	2,536		1,195,928
August	2015	445		10,107	48		10,565	August	2015	19,261		1,192,794	1,189		1,216,378
September	2015	412		10,519	103		11,080	September	2015	18,266		1,211,060	3,022		1,237,666
October	2015	322		10,841	43		11,445	October	2015	13,549		1,224,609	1,651		1,252,866
November	2015	289		11,130	29		11,763	November	2015	14,223		1,238,832	987		1,269,075
December	2015	110		11,240	8		11,881	December	2015	6,010		1,244,841	308		1,274,393
January	2016	420		11,660	23		12,324	January	2016	22,066		1,266,907	817		1,297,276
February	2016	444		12,104	72		12,840	February	2016	22,639		1,289,546	3,600		1,323,515
March	2016	415		12,519	48		13,303	March	2016	17,105		1,306,651	1,545		1,342,164
April	2016	418		12,937	65		13,786	April	2016	17,926		1,324,576	1,732		1,361,822
May	2016	384		13,321	44		14,214	May	2016	18,880		1,343,456	1,668		1,382,369
June	2016	499		13,820	88		14,801	June	2016	22,911		1,366,368	4,151		1,409,432
July	2016	598		14,418	70		15,469	July	2016	27,659		1,394,026	2,176		1,439,267
August	2016	729		15,147	105		16,302	August	2016	33,806		1,427,833	3,910		1,476,884
September	2016	414		15,561	37		16,754	September	2016	20,800		1,448,632	1,380		1,499,163
October	2016	392		15,953	57		17,203	October	2016	17,989		1,466,621	2,161		1,519,313
November	2016	470		16,423	46		17,719	November	2016	24,720		1,491,341	2,901		1,546,934
December	2016	212		16,635	10		17,941	December	2016	9,521		1,500,861	423		1,556,878
January	2017	828		17,463	76		18,845	January	2017	33,627		1,534,488	3,507		1,594,012
February	2017	235		17,698	36		19,116	February	2017	9,579		1,544,067	1,335		1,604,925
March	2017	86		17,784	6		19,208	March	2017	2,956		1,547,023	416		1,608,297
April	2017	0		17,784	0		19,208	April	2017	0		1,547,023	0		1,608,297
May	2017	0		17,784	0		19,208	May	2017	0		1,547,023	0		1,608,297
June	2017	0		17,784	0		19,208	June	2017	0		1,547,023	0		1,608,297
July	2017	0		17,784	0		19,208	July	2017	0		1,547,023	0		1,608,297
August	2017	0		17,784	0		19,208	August	2017	0		1,547,023	0		1,608,297
September	2017	0		17,784	0		19,208	September	2017	0		1,547,023	0		1,608,297
October	2017	0		17,784	0		19,208	October	2017	0		1,547,023	0		1,608,297
November	2017	0		17,784	0		19,208	November	2017	0		1,547,023	0		1,608,297
December	2017	0		17,784	0		19,208	December	2017	0		1,547,023	0		1,608,297

Appendix C.1 Residential Heat Pump Upgrade Program 2012 - 2017

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Table 1		Capacity Savings							Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Gross kW							Gross kWh/Participant for IRP			Gross kW/Participant for IRP		
		VA		NC		System			VA	NC	System	VA	NC	System
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New+Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP						
October	2012	10		10				10	214		214	0.61		0.61
November	2012	23		33				33	209		209	0.67		0.67
December	2012	26		59				59	193		193	0.69		0.69
January	2013	24		83				83	179		179	0.69		0.69
February	2013	125		208				208	176		176	0.73		0.73
March	2013	151		358				358	174		174	0.74		0.74
April	2013	113		471				471	171		171	0.74		0.74
May	2013	206		677				677	171		171	0.76		0.76
June	2013	234		911				911	171		171	0.76		0.76
July	2013	328		1,239				1,239	172		172	0.74		0.74
August	2013	243		1,482				1,482	171		171	0.74		0.74
September	2013	297		1,779				1,779	170		170	0.73		0.73
October	2013	310		2,089				2,089	168		168	0.73		0.73
November	2013	116		2,205				2,205	168		168	0.72		0.72
December	2013	248		2,453				2,453	169		169	0.73		0.73
January	2014	217		2,670	0		0	2,670	168	-	168	0.73	-	0.73
February	2014	193		2,863	0		0	2,863	166	-	166	0.73	-	0.73
March	2014	192		3,055	0		0	3,055	166	-	166	0.73	-	0.73
April	2014	219		3,275	0		0	3,275	165	-	165	0.73	-	0.73
May	2014	178		3,453	0		0	3,453	164	-	164	0.73	-	0.73
June	2014	242		3,695	1		1	3,696	163	330	163	0.73	0.84	0.73
July	2014	249		3,943	0		1	3,944	158	330	158	0.70	1.00	0.70
August	2014	158		4,102	1		2	4,104	155	173	155	0.69	0.42	0.69
September	2014	190		4,291	1		3	4,294	152	170	152	0.67	0.28	0.67
October	2014	133		4,424	4		7	4,431	151	130	151	0.67	0.34	0.67
November	2014	88		4,512	2		8	4,521	150	128	150	0.66	0.27	0.66
December	2014	110		4,622	11		19	4,641	149	137	148	0.66	0.44	0.66
January	2015	38		4,660	6		25	4,685	145	103	144	0.64	0.32	0.63
February	2015	36		4,696	5		30	4,726	141	122	141	0.61	0.32	0.61
March	2015	32		4,727	2		32	4,759	138	104	137	0.60	0.28	0.59
April	2015	36		4,763	5		36	4,800	134	84	133	0.58	0.21	0.57
May	2015	34		4,797	6		42	4,840	131	74	130	0.56	0.19	0.55
June	2015	75		4,873	8		51	4,923	125	61	123	0.53	0.15	0.52
July	2015	48		4,921	7		57	4,979	121	55	119	0.51	0.14	0.49
August	2015	47		4,968	3		61	5,029	118	51	115	0.49	0.13	0.48
September	2015	43		5,011	8		69	5,079	115	47	112	0.48	0.12	0.46
October	2015	33		5,044	4		73	5,117	113	47	109	0.47	0.12	0.45
November	2015	35		5,079	3		76	5,155	111	46	108	0.46	0.12	0.44
December	2015	15		5,094	1		77	5,171	111	46	107	0.45	0.12	0.44
January	2016	46		5,140	2		79	5,219	109	46	105	0.44	0.12	0.42
February	2016	58		5,198	9		88	5,286	107	46	103	0.43	0.12	0.41
March	2016	45		5,243	5		93	5,336	104	45	101	0.42	0.12	0.40
April	2016	47		5,290	6		99	5,390	102	44	99	0.41	0.12	0.39
May	2016	44		5,334	5		104	5,438	101	44	97	0.40	0.12	0.38
June	2016	59		5,392	9		114	5,506	99	44	95	0.39	0.12	0.37
July	2016	69		5,461	6		119	5,581	97	43	93	0.38	0.11	0.36
August	2016	83		5,544	11		130	5,674	94	43	91	0.37	0.11	0.35
September	2016	46		5,590	3		134	5,724	93	42	89	0.36	0.11	0.34
October	2016	46		5,637	5		138	5,775	92	42	88	0.35	0.11	0.34
November	2016	59		5,695	6		144	5,839	91	43	87	0.35	0.11	0.33
December	2016	23		5,719	1		145	5,864	90	43	87	0.34	0.11	0.33
January	2017	94		5,813	11		156	5,969	88	43	85	0.33	0.11	0.32
February	2017	25		5,838	3		159	5,997	87	43	84	0.33	0.11	0.31
March	2017	11		5,848	1		160	6,008	87	43	84	0.33	0.11	0.31
April	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
May	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
June	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
July	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
August	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
September	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
October	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
November	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31
December	2017	0		5,848	0		160	6,008	87	43	84	0.33	0.11	0.31

Appendix C.1 Residential Heat Pump Upgrade Program 2012 - 2017

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Table 2. EM&V Data Incremental by Vintage Year						Table 2. EM&V Data Incremental by Vintage Year					
Program Participants						Gross Incremental Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		86		-	86	2012		30,282		-	30,282
2013		3,295		-	3,295	2013		3,041,917		-	3,041,917
2014		3,649		44	3,693	2014		3,304,296		15,708	3,320,005
2015		4,210		597	4,807	2015		1,358,027		169,451	1,527,477
2016		5,395		665	6,060	2016		1,688,721		173,680	1,862,400
2017		1,149		118	1,267	2017		538,445		60,926	599,371

Table 3. EM&V Data Annualized by Vintage Year						Table 3. EM&V Data Annualized by Vintage Year					
Program Participants						Gross Annualized Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		86		-	86	2012		199,447		-	199,447
2013		3,295		-	3,295	2013		6,665,695		-	6,665,695
2014		3,649		44	3,693	2014		5,667,002		72,449	5,739,451
2015		4,210		597	4,807	2015		2,405,953		282,170	2,688,124
2016		5,395		665	6,060	2016		3,072,240		317,574	3,389,814
2017		1,149		118	1,267	2017		553,935		63,092	617,028

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)						Table 5. EM&V Data Accumulated through Vintage Year (for IRP)					
Program Participants						Gross Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		86		-	86	2012		30,282		-	30,282
2013		3,381		-	3,381	2013		3,241,365		-	3,241,365
2014		7,030		44	7,074	2014		10,169,439		15,708	10,185,147
2015		11,240		641	11,881	2015		13,890,171		241,899	14,132,070
2016		16,635		1,306	17,941	2016		16,626,818		528,299	17,155,117
2017		17,784		1,424	19,208	2017		18,548,782		733,120	19,281,902

Appendix C.1 Residential Heat Pump Upgrade Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant for IRP			Gross kW/Participant for IRP		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2012			59		-	59	352	-	352	0.69	-	0.69
2013			2,394		-	2,394	923	-	923	0.73	-	0.73
2014			2,169		19	2,188	906	357	859	0.59	0.44	0.59
2015			472		58	530	323	284	318	0.11	0.10	0.11
2016			624		69	693	313	261	307	0.12	0.10	0.11
2017			130		14	144	469	516.32	473	0.11	0.12	0.11

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant for IRP			Gross kW/Participant for IRP		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2012			59		-	59	2,319	-	2,319	0.69	-	0.69
2013			2,394		-	2,394	2,023	-	2,023	0.73	-	0.73
2014			2,169		19	2,188	1,553	1,647	1,554	0.59	0.44	0.59
2015			472		58	530	571	473	559	0.11	0.10	0.11
2016			624		69	693	569	478	559	0.12	0.10	0.11
2017			130		14	144	482	535	487	0.11	0.12	0.11

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant			Gross kW/Participant		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2012			59		-	59	352	-	352	0.69	-	0.69
2013			2,453		-	2,453	959	-	959	0.73	-	0.73
2014			4,622		19	4,641	1,447	357	1,440	0.66	0.44	0.66
2015			5,094		77	5,171	1,236	377	1,189	0.45	0.12	0.44
2016			5,719		145	5,864	1,000	405	956	0.34	0.11	0.33
2017			5,848		160	6,008	1,043	515	1,004	0.33	0.11	0.31

Appendix C.2 Residential Heat Pump Tune-up Program 2012 - 2017

PROGRAM: Residential Heat Pump Tune-Up
DSM Phase II Program
Type: Energy Efficiency
Program Measure Life: 5.0 years

Table 1									Table 1										
Participation Program Participants									Energy Savings Gross kWh										
Month	Year	VA		NC			System			Month	Year	VA		NC			System		
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP	VA Monthly New			VA Monthly Retired	VA Cum. for IRP (New + Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP		
		[A]	[-A retired]	[E] = Σ[A] + Σ[-A retired]	[C]	[-C retired]	[G] = Σ[C] + Σ[-C retired]	E+G											
October	2012	139		139				139	October	2012	3,572			3,572			3,572		
November	2012	577		716				716	November	2012	14,513			18,085			18,085		
December	2012	493		1,209				1,209	December	2012	12,319			30,405			30,405		
January	2013	536		1,745				1,745	January	2013	13,583			43,988			43,988		
February	2013	2,124		3,869				3,869	February	2013	53,678			97,666			97,666		
March	2013	2,194		6,063				6,063	March	2013	53,912			151,578			151,578		
April	2013	876		6,939				6,939	April	2013	21,668			173,246			173,246		
May	2013	1,779		8,718				8,718	May	2013	43,704			216,950			216,950		
June	2013	1,236		9,954				9,954	June	2013	30,932			247,882			247,882		
July	2013	891		10,845				10,845	July	2013	22,036			269,918			269,918		
August	2013	570		11,415				11,415	August	2013	13,974			283,891			283,891		
September	2013	1,275		12,690				12,690	September	2013	31,243			315,134			315,134		
October	2013	1,408		14,098				14,098	October	2013	34,370			349,505			349,505		
November	2013	1,323		15,421				15,421	November	2013	31,563			381,068			381,068		
December	2013	1,424		16,845				16,845	December	2013	33,154			414,221			414,221		
January	2014	995		17,840			0	17,840	January	2014	20,832			435,054	0		435,054		
February	2014	1,178		19,018			0	19,018	February	2014	25,304			460,358	0		460,358		
March	2014	949		19,967			0	19,967	March	2014	19,914			480,272	0		480,272		
April	2014	1,865		21,832			0	21,832	April	2014	37,986			518,258	0		518,258		
May	2014	2,465		24,297		3	3	24,300	May	2014	52,729			570,987	114		571,101		
June	2014	3,699		27,996		3	3	28,002	June	2014	76,005			646,992	102		647,102		
July	2014	3,427		31,423		2	8	31,431	July	2014	73,221			720,213	46		720,259		
August	2014	2,727		34,150		17	25	34,175	August	2014	56,768			776,981	378		777,359		
September	2014	2,248		36,398		14	39	36,437	September	2014	45,321			822,302	301		823,243		
October	2014	1,621		38,019		82	121	38,140	October	2014	35,573			857,874	1,766		860,581		
November	2014	1,833		39,852		263	384	40,236	November	2014	41,709			899,584	5,665		907,955		
December	2014	1,680		41,532		197	581	42,113	December	2014	37,137			936,720	4,533		949,625		
January	2015	1,968		43,500		448	1,029	44,529	January	2015	37,286			974,008	9,510		996,421		
February	2015	1,931		45,431		316	1,345	46,776	February	2015	34,162			1,008,168	6,487		1,032,070		
March	2015	1,219		46,650		254	1,599	48,249	March	2015	22,609			1,030,776	5,505		1,065,184		
April	2015	3,141		49,791		342	1,941	51,732	April	2015	54,329			1,085,106	7,479		1,125,992		
May	2015	2,128		51,919		313	2,254	54,173	May	2015	37,020			1,122,126	6,603		1,170,616		
June	2015	2,085		54,004		523	2,777	56,781	June	2015	35,641			1,157,767	11,242		1,217,499		
July	2015	2,133		56,137		282	3,059	59,196	July	2015	34,169			1,191,936	6,006		1,257,674		
August	2015	1,931		58,068		171	3,230	61,298	August	2015	31,994			1,223,930	3,569		1,293,237		
September	2015	1,873		59,941		336	3,566	63,507	September	2015	32,713			1,256,642	7,067		1,333,016		
October	2015	1,900		61,841		169	3,735	65,576	October	2015	34,727			1,291,370	3,642		1,371,386		
November	2015	1,866		63,707		102	3,837	67,544	November	2015	32,957			1,324,327	2,167		1,406,510		
December	2015	1,939		65,646		51	3,888	69,534	December	2015	34,654			1,358,981	1,030		1,442,193		
January	2016	1,761		67,407		94	3,982	71,389	January	2016	30,996			1,389,976	2,058		1,475,247		
February	2016	2,101		69,508		170	4,152	73,660	February	2016	37,913			1,427,890	3,405		1,516,565		
March	2016	1,113		70,621		117	4,269	74,890	March	2016	19,660			1,447,549	2,489		1,538,714		
April	2016	1,726		72,347		159	4,428	76,775	April	2016	30,907			1,478,456	3,287		1,572,908		
May	2016	1,550		73,897		96	4,524	78,421	May	2016	29,652			1,508,108	2,009		1,604,569		
June	2016	1,649		75,546		179	4,703	80,249	June	2016	31,531			1,539,639	3,809		1,639,909		
July	2016	1,259		76,805		100	4,803	81,608	July	2016	22,980			1,562,619	2,244		1,665,133		
August	2016	1,754		78,559		113	4,916	83,475	August	2016	30,668			1,593,287	2,436		1,698,237		
September	2016	1,313		79,872		54	4,970	84,842	September	2016	21,891			1,615,178	1,075		1,721,202		
October	2016	1,644		81,516		54	5,024	86,540	October	2016	26,927			1,642,105	1,121		1,749,251		
November	2016	2,249		83,765		71	5,095	88,860	November	2016	37,956			1,680,061	1,594		1,788,801		
December	2016	889		84,654		67	5,162	89,816	December	2016	15,198			1,695,259	1,363		1,805,361		
January	2017	2,221		86,875		80	5,242	92,117	January	2017	37,047			1,732,306	1,696		1,844,105		
February	2017	219		87,094		29	5,271	92,365	February	2017	4,049			1,736,355	592		1,849,745		
March	2017	32		87,126		16	5,287	92,413	March	2017	637			1,736,992	383		1,849,765		
April	2017	0		87,126		0	5,287	92,413	April	2017	0			1,736,992	0		1,849,765		
May	2017	0		87,126		0	5,287	92,413	May	2017	0			1,736,992	0		1,849,765		
June	2017	0		87,126		0	5,287	92,413	June	2017	0			1,736,992	0		1,849,765		
July	2017	0		87,126		0	5,287	92,413	July	2017	0			1,736,992	0		1,849,765		
August	2017	0		87,126		0	5,287	92,413	August	2017	0			1,736,992	0		1,849,765		
September	2017	0		87,126		0	5,287	92,413	September	2017	0			1,736,992	0		1,849,765		
October	2017	0		87,126		0	5,287	92,413	October	2017	0			1,736,992	0		1,849,765		
November	2017	0	-139	86,987		0	5,287	92,274	November	2017	0	-3,572	1,733,420	0	0	1,849,765			
December	2017	0	-577	86,410		0	5,287	91,597	December	2017	0	-14,513	1,718,907	0	0	1,831,666			

Appendix C.2 Residential Heat Pump Tune-up Program 2012 - 2017

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Table 1		Capacity Savings Gross kW							Energy Savings / Participant Gross kWh/Participant for IRP			Capacity Savings / Participant Gross kW/Participant for IRP		
Month	Year	VA		NC			System		VA	NC	System	VA	NC	System
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New+Retired)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP						
October	2012	29		29				29	26		26	0.21		0.21
November	2012	119		148				148	25		25	0.21		0.21
December	2012	101		250				250	25		25	0.21		0.21
January	2013	111		361				361	25		25	0.21		0.21
February	2013	440		801				801	25		25	0.21		0.21
March	2013	444		1,245				1,245	25		25	0.21		0.21
April	2013	179		1,424				1,424	25		25	0.21		0.21
May	2013	362		1,786				1,786	25		25	0.20		0.20
June	2013	257		2,042				2,042	25		25	0.21		0.21
July	2013	181		2,224				2,224	25		25	0.21		0.21
August	2013	115		2,339				2,339	25		25	0.20		0.20
September	2013	256		2,595				2,595	25		25	0.20		0.20
October	2013	282		2,877				2,877	25		25	0.20		0.20
November	2013	260		3,137				3,137	25		25	0.20		0.20
December	2013	273		3,410				3,410	25		25	0.20		0.20
January	2014	133		3,543	0		0	3,543	24	-	24	0.20	-	0.20
February	2014	160		3,703	0		0	3,703	24	-	24	0.19	-	0.19
March	2014	126		3,829	0		0	3,829	24	-	24	0.19	-	0.19
April	2014	237		4,067	0		0	4,067	24	-	24	0.19	-	0.19
May	2014	325		4,392	1		1	4,392	24	38	24	0.18	0.24	0.18
June	2014	473		4,865	1		1	4,867	23	36	23	0.17	0.22	0.17
July	2014	446		5,312	0		2	5,313	23	33	23	0.17	0.20	0.17
August	2014	347		5,659	2		4	5,663	23	26	23	0.17	0.16	0.17
September	2014	282		5,941	2		6	5,946	23	24	23	0.16	0.15	0.16
October	2014	210		6,150	11		17	6,167	23	22	23	0.16	0.14	0.16
November	2014	239		6,389	36		53	6,442	23	22	23	0.16	0.14	0.16
December	2014	219		6,608	27		80	6,688	23	22	23	0.16	0.14	0.16
January	2015	2,021		8,629	84		164	8,793	22	22	22	0.20	0.16	0.20
February	2015	306		8,935	58		222	9,157	22	21	22	0.20	0.16	0.20
March	2015	203		9,139	49		270	9,409	22	22	22	0.20	0.17	0.20
April	2015	483		9,621	66		337	9,958	22	22	22	0.19	0.17	0.19
May	2015	332		9,953	59		396	10,349	22	22	22	0.19	0.18	0.19
June	2015	318		10,272	100		495	10,767	21	22	21	0.19	0.18	0.19
July	2015	298		10,570	53		549	11,118	21	21	21	0.19	0.18	0.19
August	2015	282		10,851	32		581	11,432	21	21	21	0.19	0.18	0.19
September	2015	291		11,143	63		644	11,786	21	21	21	0.19	0.18	0.19
October	2015	308		11,450	33		677	12,127	21	21	21	0.19	0.18	0.18
November	2015	289		11,739	19		696	12,435	21	21	21	0.18	0.18	0.18
December	2015	304		12,043	9		705	12,749	21	21	21	0.18	0.18	0.18
January	2016	275		12,318	18		723	13,042	21	21	21	0.18	0.18	0.18
February	2016	336		12,654	30		754	13,408	21	21	21	0.18	0.18	0.18
March	2016	175		12,829	22		776	13,605	20	21	21	0.18	0.18	0.18
April	2016	274		13,103	29		805	13,908	20	21	20	0.18	0.18	0.18
May	2016	266		13,369	18		823	14,192	20	21	20	0.18	0.18	0.18
June	2016	284		13,653	34		858	14,511	20	21	20	0.18	0.18	0.18
July	2016	205		13,858	20		878	14,736	20	21	20	0.18	0.18	0.18
August	2016	269		14,128	22		900	15,027	20	21	20	0.18	0.18	0.18
September	2016	196		14,323	10		909	15,233	20	21	20	0.18	0.18	0.18
October	2016	243		14,566	10		919	15,485	20	21	20	0.18	0.18	0.18
November	2016	345		14,911	14		933	15,845	20	21	20	0.18	0.18	0.18
December	2016	135		15,046	12		946	15,992	20	21	20	0.18	0.18	0.18
January	2017	347		15,393	16		962	16,354	20	21	20	0.18	0.18	0.18
February	2017	38		15,431	5		967	16,398	20	21	20	0.18	0.18	0.18
March	2017	6		15,437	4		971	16,407	20	21	20	0.18	0.18	0.18
April	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
May	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
June	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
July	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
August	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
September	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
October	2017	0		15,437	0		971	16,407	20	21	20	0.18	0.18	0.18
November	2017	0	-29	15,407	0	0	971	16,378	20	21	20	0.18	0.18	0.18
December	2017	0	-119	15,288	0	0	971	16,259	20	21	20	0.18	0.18	0.18

Appendix C.2 Residential Heat Pump Tune-up Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year						Table 2. EM&V Data Incremental by Vintage Year					
Program Participants						Gross Incremental Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		1,209		-	1,209	2012		52,062		-	52,062
2013		15,636		-	15,636	2013		2,580,193		-	2,580,193
2014		24,687		581	25,268	2014		3,154,939		26,155	3,181,094
2015		24,114		3,307	27,421	2015		2,784,491		537,806	3,322,297
2016		19,008		1,274	20,282	2016		2,272,360		197,221	2,469,580
2017		1,756		125	1,881	2017		473,818		30,693	504,511

Table 3. EM&V Data Annualized by Vintage Year						Table 3. EM&V Data Annualized by Vintage Year					
Program Participants						Gross Annualized Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		1,209		-	1,209	2012		364,856		-	364,856
2013		15,636		-	15,636	2013		4,605,801		-	4,605,801
2014		24,687		581	25,268	2014		6,269,989		154,857	6,424,846
2015		24,114		3,307	27,421	2015		5,067,124		843,691	5,910,815
2016		19,008		1,274	20,282	2016		4,035,338		322,679	4,358,017
2017		1,756		125	1,881	2017		283,774		32,050	315,824

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)						Table 5. EM&V Data Accumulated through Vintage Year (for IRP)					
Program Participants						Gross Energy (kWh)					
		VA IRP		NC IRP	System IRP			VA IRP		NC IRP	System IRP
2012		1,209		-	1,209	2012		52,062		-	52,062
2013		16,845		-	16,845	2013		2,945,048		-	2,945,048
2014		41,532		581	42,113	2014		8,125,595		26,155	8,151,750
2015		65,646		3,888	69,534	2015		14,025,136		692,663	14,717,799
2016		84,654		5,162	89,816	2016		18,580,129		1,195,769	19,775,897
2017		86,410		5,287	91,697	2017		20,816,925		1,351,920	22,168,845

Appendix C.2 Residential Heat Pump Tune-up Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant for IRP			Gross kW/Participant for IRP		
	VA IRP		NC IRP		System IRP		VA	NC	System	VA	NC	System
2012		250		-		250	43	-	43	0.21	-	0.21
2013		3,160		-		3,160	165	-	165	0.20	-	0.20
2014		3,198		80		3,278	128	45	126	0.13	0.14	0.13
2015		5,435		625		6,061	115	163	121	0.23	0.19	0.22
2016		3,003		241		3,243	120	155	122	0.16	0.19	0.16
2017		242		25		267	270	245.54	268	0.14	0.20	0.14

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant for IRP			Gross kW/Participant for IRP		
	VA IRP		NC IRP		System IRP		VA	NC	System	VA	NC	System
2012		250		-		250	302	-	302	0.21	-	0.21
2013		3,160		-		3,160	295	-	295	0.20	-	0.20
2014		3,198		80		3,278	254	267	254	0.13	0.14	0.13
2015		5,435		625		6,061	210	255	216	0.23	0.19	0.22
2016		3,003		241		3,243	212	253	215	0.16	0.19	0.16
2017		242		25		267	162	256	168	0.14	0.20	0.14

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant			Gross kW/Participant		
	VA IRP		NC IRP		System IRP		VA	NC	System	VA	NC	System
2012		250		-		250	43	-	43	0.21	-	0.21
2013		3,410		-		3,410	175	-	175	0.20	-	0.20
2014		6,608		80		6,688	196	45	194	0.16	0.14	0.16
2015		12,043		705		12,749	214	178	212	0.18	0.18	0.18
2016		15,046		946		15,992	219	232	220	0.18	0.18	0.18
2017		15,288		971		16,259	241	256	242	0.18	0.18	0.18