

Appendix C.11 Non-residential Heating and Cooling Efficiency Program 2014 - 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						
January	2014	0		0					0	-	-	-	-	-
February	2014	0		0					0	-	-	-	-	-
March	2014	0		0					0	-	-	-	-	-
April	2014	0		0					0	-	-	-	-	-
May	2014	0		0					0	-	-	-	-	-
June	2014	0		0					0	-	-	-	-	-
July	2014	0		0					0	-	-	-	-	-
August	2014	0		0					0	-	-	-	-	-
September	2014	0		0					0	-	-	-	-	-
October	2014	0		0					0	-	-	-	-	-
November	2014	338		338				338	71,924		71,924	338.32		338.32
December	2014	172		510				510	20,236		20,236	85.02		85.02
January	2015	0		510	0		0	510	20,236	-	20,236	85.02	-	85.02
February	2015	2		512	0		0	512	17,731	-	17,731	73.17	-	73.17
March	2015	0		512	0		0	512	17,731	-	17,731	73.17	-	73.17
April	2015	622		1,134	24		24	1,157	16,109	1,581	14,947	49.30	11.77	46.30
May	2015	386		1,520	3		27	1,547	8,582	2,532	8,279	26.67	8.97	25.78
June	2015	294		1,814	0		27	1,841	7,175	2,532	6,992	24.85	8.97	24.23
July	2015	417		2,231	0		27	2,258	6,985	2,532	6,854	22.54	8.97	22.14
August	2015	15		2,246	0		27	2,273	6,858	2,532	6,734	22.24	8.97	21.86
September	2015	558		2,804	0		27	2,831	8,178	2,532	8,026	25.96	8.97	25.50
October	2015	270		3,074	0		27	3,101	8,438	2,532	8,285	27.21	8.97	26.73
November	2015	64		3,138	0		27	3,165	8,748	2,532	8,590	27.29	8.97	26.82
December	2015	149		3,287	0		27	3,314	8,741	2,532	8,589	27.39	8.97	26.94
January	2016	83		3,370	0		27	3,397	8,493	2,532	8,355	26.53	8.97	26.13
February	2016	219		3,589	0		27	3,616	8,140	2,532	8,019	26.39	8.97	26.01
March	2016	77		3,665	0		27	3,692	8,082	2,532	7,966	26.18	8.97	25.82
April	2016	270		3,935	1		27	3,963	9,139	2,127	8,952	26.95	6.86	26.42
May	2016	49		3,985	78		106	4,090	9,279	2,728	9,070	26.22	21.11	26.05
June	2016	268		4,253	14		119	4,372	9,090	4,441	8,900	25.93	17.03	25.57
July	2016	137		4,389	0		119	4,509	8,933	4,441	8,756	25.67	17.03	25.33
August	2016	292		4,681	1		120	4,801	9,507	3,952	9,275	25.58	14.97	25.14
September	2016	182		4,863	0		120	4,983	10,502	3,952	10,237	25.60	14.97	25.17
October	2016	145		5,009	0		120	5,128	10,486	3,952	10,230	25.55	14.97	25.14
November	2016	174		5,183	0		120	5,303	10,474	3,524	10,177	25.66	13.35	25.13
December	2016	188		5,371	0		120	5,492	10,460	3,524	10,174	25.70	13.35	25.19
January	2017	25		5,397	0		120	5,517	10,076	3,524	9,816	24.76	13.35	24.30
February	2017	67		5,464	0		120	5,584	9,885	3,524	9,643	24.07	13.35	23.66
March	2017	12		5,476	0		120	5,596	9,874	3,524	9,632	24.02	13.35	23.61
April	2017	7		5,483	0		120	5,603	9,862	3,524	9,624	23.84	13.35	23.44
May	2017	1,471		6,954	-39		81	7,035	10,153	3,789	9,901	28.62	8.13	27.81
June	2017	36		6,989	0		81	7,071	9,486	3,448	9,246	26.28	7.39	25.53
July	2017	85		7,074	292		373	7,448	9,377	10,877	9,491	25.45	16.23	24.74
August	2017	8		7,082	0		373	7,455	9,096	10,877	9,228	24.59	16.23	23.97
September	2017	133		7,215	-1		372	7,587	9,134	10,454	9,233	24.38	15.50	23.71
October	2017	48		7,263	0		372	7,635	9,098	10,454	9,198	24.13	15.50	23.49
November	2017	41		7,304	0		372	7,676	8,950	10,454	9,058	23.48	15.50	22.91
December	2017	14		7,318	0		372	7,690	9,017	10,454	9,120	23.46	15.50	22.89

Appendix C.11 Non-residential Heating and Cooling Efficiency Program 2014 - 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
2014		6		-	6	2014		193,340		-	193,340
2015		114		3	117	2015		5,571,987		63,926	5,635,912
2016		89		6	95	2016		6,585,656		174,252	6,759,908
2017		103		15	118	2017		3,981,580		1,325,969	5,307,549

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
2014		6		-	6	2014		1,456,991		-	1,456,991
2015		114		3	117	2015		11,129,837		91,144	11,220,982
2016		89		6	95	2016		13,647,306		289,500	13,936,806
2017		103		15	118	2017		7,526,876		2,630,032	10,156,908

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
2014		6		-	6	2014		193,340		-	193,340
2015		120		3	123	2015		7,028,978		63,926	7,092,904
2016		209		9	218	2016		19,172,484		265,397	19,437,881
2017		312		24	336	2017		30,215,714		1,706,613	31,922,328

Appendix C.11 Non-residential Heating and Cooling Efficiency Program 2014 - 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
2014			510		-	510	32,223	-	32,223	85.02	-	85.02
2015			2,777		27	2,804	48,877	21,309	48,170	24.36	8.97	23.97
2016			2,084		93	2,177	73,996	29,042	71,157	23.42	15.54	22.92
2017			1,947		252	2,199	38,656	88,398	44,979	18.90	16.79	18.63

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
2014			510		-	510	242,832	-	242,832	85.02	-	85.02
2015			2,777		27	2,804	97,630	30,381	95,906	24.36	8.97	23.97
2016			2,084		93	2,177	153,341	48,250	146,703	23.42	15.54	22.92
2017			1,947		252	2,199	73,076	175,335	86,075	18.90	16.79	18.63

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							IRP Energy Savings/Participant			IRP Capacity		
	Gross Peak Demand (kW)						Gross kWh/Participant			Gross kW/Participant		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2014			510		-	510	32,223	-	32,223	85.02	-	85.02
2015			3,287		27	3,314	58,575	21,309	57,666	27.39	8.97	26.94
2016			5,371		120	5,492	91,734	29,489	89,165	25.70	13.35	25.19
2017			7,318		372	7,690	96,845	71,109	95,007	23.46	15.50	22.89

Appendix C.12 Non-residential Window Film Program 2014 - 2017

PROGRAM: Non-residential Window Film
DSM Phase III Program
Type: Energy Efficiency
Program Measure Life: 10.0 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) [E] = Σ[A] + Σ[-A retired]	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired) [G] = Σ[C] + Σ[-C 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]		[C]	[-C retired]									
January	2014	0		0				0	January	2014	0		0		0
February	2014	0		0				0	February	2014	0		0		0
March	2014	0		0				0	March	2014	0		0		0
April	2014	0		0				0	April	2014	0		0		0
May	2014	0		0				0	May	2014	0		0		0
June	2014	0		0				0	June	2014	0		0		0
July	2014	0		0				0	July	2014	0		0		0
August	2014	0		0				0	August	2014	0		0		0
September	2014	0		0				0	September	2014	0		0		0
October	2014	1		1				1	October	2014	222		222		222
November	2014	0		1				1	November	2014	0		222		222
December	2014	2		3				3	December	2014	95,818		96,040		96,040
January	2015	2		5				5	January	2015	10		96,050		96,050
February	2015	3		8				8	February	2015	181		96,231		96,231
March	2015	1		9				9	March	2015	44		96,275		96,275
April	2015	2		11				11	April	2015	255,181		351,456		351,456
May	2015	2		13				13	May	2015	30		351,486		351,486
June	2015	3		16				16	June	2015	330		351,816		351,816
July	2015	1		17				17	July	2015	-2		351,815		351,815
August	2015	2		19				19	August	2015	141		351,955		351,955
September	2015	1		20				20	September	2015	0		351,955		351,955
October	2015	2		22				22	October	2015	367		352,322		352,322
November	2015	1		23				23	November	2015	165		352,487		352,487
December	2015	2		25				25	December	2015	37		352,524		352,524
January	2016	4		29	0		0	29	January	2016	14,147		366,671	0	366,671
February	2016	4		33	0		0	33	February	2016	764		367,436	0	367,436
March	2016	7		40	0		0	40	March	2016	2,385		369,821	0	369,821
April	2016	7		47	0		0	47	April	2016	2,110		371,931	0	371,931
May	2016	6		53	0		0	53	May	2016	447		372,378	0	372,378
June	2016	4		57	0		0	57	June	2016	353		372,732	0	372,732
July	2016	3		60	0		0	60	July	2016	3,036		375,767	0	375,767
August	2016	11		71	0		0	71	August	2016	1,644		377,411	0	377,411
September	2016	10		81	0		0	81	September	2016	4,165		381,576	0	381,576
October	2016	7		88	0		0	88	October	2016	2,087		383,663	0	383,663
November	2016	6		94	0		0	94	November	2016	7,577		391,240	0	391,240
December	2016	1		95	0		0	95	December	2016	17		391,257	0	391,257
January	2017	4		99	0		0	99	January	2017	2,151		393,408	0	393,408
February	2017	3		102	0		0	102	February	2017	15,587		408,995	0	408,995
March	2017	4		106	0		0	106	March	2017	9,920		418,916	0	418,916
April	2017	1		107	0		0	107	April	2017	12,845		431,760	0	431,760
May	2017	7		114	0		0	114	May	2017	996		432,756	0	432,756
June	2017	1		115	0		0	115	June	2017	3,250		436,006	0	436,006
July	2017	3		118	0		0	118	July	2017	16,139		452,145	0	452,145
August	2017	15		133	0		0	133	August	2017	40,373		492,518	0	492,518
September	2017	7		140	0		0	140	September	2017	1,566		494,084	0	494,084
October	2017	8		148	0		0	148	October	2017	6,398		500,482	0	500,482
November	2017	6		154	0		0	154	November	2017	35,200		535,682	0	535,682
December	2017	0		154	0		0	154	December	2017	130		535,812	0	535,812

Appendix C.12 Non-residential Window Film Program 2014 - 2017

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						
January	2014	0		0				0	-	-	-	-	-	-
February	2014	0		0				0	-	-	-	-	-	-
March	2014	0		0				0	-	-	-	-	-	-
April	2014	0		0				0	-	-	-	-	-	-
May	2014	0		0				0	-	-	-	-	-	-
June	2014	0		0				0	-	-	-	-	-	-
July	2014	0		0				0	-	-	-	-	-	-
August	2014	0		0				0	-	-	-	-	-	-
September	2014	0		0				0	-	-	-	-	-	-
October	2014	1		1				1	222		222	0.80		0.80
November	2014	0						1	222		222	0.80		0.80
December	2014	232		233				233	32,013		32,013	77.71		77.71
January	2015	0		233				233	19,210		19,210	46.65		46.65
February	2015	1		234				234	12,029		12,029	29.28		29.28
March	2015	0		234				234	10,697		10,697	26.05		26.05
April	2015	621		855				855	31,951		31,951	77.75		77.75
May	2015	0		856				856	27,037		27,037	65.81		65.81
June	2015	1		857				857	21,989		21,989	53.55		53.55
July	2015	0		857				857	20,695		20,695	50.41		50.41
August	2015	1		857				857	18,524		18,524	45.13		45.13
September	2015	0		857				857	17,598		17,598	42.87		42.87
October	2015	2		859				859	16,015		16,015	39.05		39.05
November	2015	0		860				860	15,326		15,326	37.37		37.37
December	2015	0		860				860	14,101		14,101	34.39		34.39
January	2016	57		917	0		0	917	12,644	-	12,644	31.61	-	31.61
February	2016	3		919	0		0	919	11,134	-	11,134	27.86	-	27.86
March	2016	13		933	0		0	933	9,246	-	9,246	23.31	-	23.31
April	2016	7		940	0		0	940	7,913	-	7,913	20.00	-	20.00
May	2016	2		942	0		0	942	7,026	-	7,026	17.77	-	17.77
June	2016	1		942	0		0	942	6,539	-	6,539	16.53	-	16.53
July	2016	9		951	0		0	951	6,263	-	6,263	15.85	-	15.85
August	2016	5		957	0		0	957	5,316	-	5,316	13.47	-	13.47
September	2016	12		968	0		0	968	4,711	-	4,711	11.96	-	11.96
October	2016	7		976	0		0	976	4,360	-	4,360	11.09	-	11.09
November	2016	23		999	0		0	999	4,162	-	4,162	10.63	-	10.63
December	2016	0		999	0		0	999	4,118	-	4,118	10.52	-	10.52
January	2017	9		1,009	0		0	1,009	3,974	-	3,974	10.19	-	10.19
February	2017	54		1,062	0		0	1,062	4,010	-	4,010	10.41	-	10.41
March	2017	32		1,094	0		0	1,094	3,952	-	3,952	10.32	-	10.32
April	2017	42		1,136	0		0	1,136	4,035	-	4,035	10.62	-	10.62
May	2017	3		1,140	0		0	1,140	3,796	-	3,796	10.00	-	10.00
June	2017	16		1,156	0		0	1,156	3,791	-	3,791	10.05	-	10.05
July	2017	55		1,210	0		0	1,210	3,832	-	3,832	10.26	-	10.26
August	2017	116		1,326	0		0	1,326	3,703	-	3,703	9.97	-	9.97
September	2017	7		1,333	0		0	1,333	3,529	-	3,529	9.52	-	9.52
October	2017	29		1,362	0		0	1,362	3,382	-	3,382	9.20	-	9.20
November	2017	109		1,470	0		0	1,470	3,478	-	3,478	9.55	-	9.55
December	2017	1		1,471	0		0	1,471	3,479	-	3,479	9.55	-	9.55

Appendix C.12 Non-residential Window Film Program 2014 - 2017

Table 2. EM&V Data Incremental by Vintage Year								Table 2. EM&V Data Incremental by Vintage Year							
	Program Participants			VA IRP		NC IRP	System IRP		Gross Incremental Energy (kWh)			VA IRP		NC IRP	System IRP
2014				3		-	3	2014				96,483		-	96,483
2015				22		-	22	2015				2,303,898		-	2,303,898
2016				70		-	70	2016				291,593		-	291,593
2017				59		-	59	2017				837,481		-	837,481

Table 3. EM&V Data Annualized by Vintage Year								Table 3. EM&V Data Annualized by Vintage Year							
	Program Participants			VA IRP		NC IRP	System IRP		Gross Annualized Energy (kWh)			VA IRP		NC IRP	System IRP
2014				3		-	3	2014				1,152,476		-	1,152,476
2015				22		-	22	2015				3,077,815		-	3,077,815
2016				70		-	70	2016				464,794		-	464,794
2017				59		-	59	2017				1,734,665		-	1,734,665

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)								Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							
	Program Participants			VA		NC PPI	System		Gross Energy (kWh) for PPI			VA		NC PPI	System
2014						-		2014						-	
2015						-		2015						-	
2016						-		2016						-	
2017						-		2017						-	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)								Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							
	Program Participants			VA IRP		NC IRP	System IRP		Gross Energy (kWh)			VA IRP		NC IRP	System IRP
2014				3		-	3	2014				96,483		-	96,483
2015				25		-	25	2015				3,456,374		-	3,456,374
2016				95		-	95	2016				4,521,884		-	4,521,884
2017				154		-	154	2017				5,532,566		-	5,532,566

Appendix C.12 Non-residential Window Film Program 2014 - 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
2014	233				-	233	32,161	-	32,161	77.71	-	77.71
2015	627				-	627	104,723	-	104,723	28.48	-	28.48
2016	140				-	140	4,166	-	4,166	2.00	-	2.00
2017	471				-	471	14,195	-	14,195	7.99	-	7.99

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
2014	233				-	233	384,159	-	384,159	77.71	-	77.71
2015	627				-	627	139,901	-	139,901	28.48	-	28.48
2016	140				-	140	6,640	-	6,640	2.00	-	2.00
2017	471				-	471	29,401	-	29,401	7.99	-	7.99

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Gross Peak Demand (kW)						Gross kWh/Participant			Gross kW/Participant		
	VA				NC PPI	System	VA	NC	System	VA	NC	System
2014					-			-			-	
2015					-			-			-	
2016					-			-			-	
2017					-			-			-	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							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
2014	233				-	233	32,161	-	32,161	77.71	-	77.71
2015	860				-	860	138,255	-	138,255	34.39	-	34.39
2016	999				-	999	47,599	-	47,599	10.52	-	10.52
2017	1,471				-	1,471	35,926	-	35,926	9.55	-	9.55

Appendix C.13 Non-residential Small Business Improvement Program 2016 - 2017

PROGRAM: Small Business Improvement Program
DSM Phase V Program
Type: Energy Efficiency
Program Measure Life: 14.0 years

Table 1		Participation							Table 1		Energy Savings						
Month	Year	Program Participants		NC				System	Month	Year	Gross kWh		NC				System
		VA									VA						
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired) [E] = Σ[A] + Σ[-A retired]	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired) [G] = Σ[C] + Σ[-C 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]		[C]	[-C retired]													
December	2015								December	2015							
January	2016	0		0	0		0	0	January	2016	0		0	0		0	
February	2016	0		0	0		0	0	February	2016	0		0	0		0	
March	2016	0		0	0		0	0	March	2016	0		0	0		0	
April	2016	0		0	0		0	0	April	2016	0		0	0		0	
May	2016	0		0	0		0	0	May	2016	0		0	0		0	
June	2016	0		0	0		0	0	June	2016	0		0	0		0	
July	2016	0		0	0		0	0	July	2016	0		0	0		0	
August	2016	0		0	0		0	0	August	2016	0		0	0		0	
September	2016	0		0	0		0	0	September	2016	0		0	0		0	
October	2016	4		4	0		0	4	October	2016	3,443		3,443	0		3,443	
November	2016	34		38	0		0	38	November	2016	11,775		15,218	0		15,218	
December	2016	29		67	0		0	67	December	2016	39,516		54,733	0		54,733	
January	2017	73		140	0		0	140	January	2017	71,461		126,194	0		126,194	
February	2017	37		177	0		0	177	February	2017	26,382		152,576	0		152,576	
March	2017	92		269	0		0	269	March	2017	105,881		258,457	0		258,457	
April	2017	101		370	0		0	370	April	2017	74,495		332,953	0		332,953	
May	2017	165		535	0		0	535	May	2017	143,204		476,157	0		476,157	
June	2017	101		636	1		1	637	June	2017	104,754		580,910	1,128		582,039	
July	2017	89		725	1		2	727	July	2017	126,670		707,581	4,282		712,990	
August	2017	89		814	0		2	816	August	2017	111,849		819,429	0		824,839	
September	2017	40		854	0		2	856	September	2017	100,158		919,588	0		924,997	
October	2017	74		928	0		2	930	October	2017	180,220		1,099,807	0		1,105,217	
November	2017	38		966	0		2	968	November	2017	107,464		1,207,271	0		1,212,681	
December	2017	38		1,004	5		7	1,011	December	2017	72,379		1,279,650	8,466		1,293,526	

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Appendix C.13 Non-residential Small Business Improvement Program 2016 - 2017

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						
December	2015							0						
January	2016	0		0	0		0	0	-	-	-	-	-	-
February	2016	0		0	0		0	0	-	-	-	-	-	-
March	2016	0		0	0		0	0	-	-	-	-	-	-
April	2016	0		0	0		0	0	-	-	-	-	-	-
May	2016	0		0	0		0	0	-	-	-	-	-	-
June	2016	0		0	0		0	0	-	-	-	-	-	-
July	2016	0		0	0		0	0	-	-	-	-	-	-
August	2016	0		0	0		0	0	-	-	-	-	-	-
September	2016	0		0	0		0	0	-	-	-	-	-	-
October	2016	7		7	0		0	7	861	-	861	1.70	-	1.70
November	2016	18		25	0		0	25	400	-	400	0.67	-	0.67
December	2016	106		132	0		0	132	817	-	817	1.96	-	1.96
January	2017	175		306	0		0	306	901	-	901	2.19	-	2.19
February	2017	66		372	0		0	372	862	-	862	2.10	-	2.10
March	2017	282		654	0		0	654	961	-	961	2.43	-	2.43
April	2017	199		853	0		0	853	900	-	900	2.31	-	2.31
May	2017	325		1,178	0		0	1,178	890	-	890	2.20	-	2.20
June	2017	271		1,449	0		0	1,449	913	1,128	914	2.28	0.00	2.27
July	2017	320		1,769	7		7	1,776	976	2,705	981	2.44	3.61	2.44
August	2017	302		2,070	0		7	2,078	1,007	2,705	1,011	2.54	3.61	2.55
September	2017	266		2,337	0		7	2,344	1,077	2,705	1,081	2.74	3.61	2.74
October	2017	417		2,753	0		7	2,761	1,185	2,705	1,188	2.97	3.61	2.97
November	2017	280		3,033	0		7	3,040	1,250	2,705	1,253	3.14	3.61	3.14
December	2017	196		3,230	25		33	3,262	1,275	1,982	1,279	3.22	4.66	3.23

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Appendix C.13 Non-residential Small Business Improvement Program 2016 - 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
2016			67			-	67	2016		73,394			-	73,394	
2017			937			7	944	2017		7,303,773			42,053	7,345,825	

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
2016				67			-	67	2016				656,801			-	656,801
2017				937			7	944	2017				14,699,005			166,507	14,865,511

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							
	Program Participants							Net Energy (kWh)						
			VA IRP			NC IRP		System IRP			VA IRP			NC IRP
2016			67			-	67	2016		73,394			-	73,394
2017			1,004			7	1,011	2017		7,960,574			42,053	8,002,627

Appendix C.13 Non-residential Small Business Improvement Program 2016 - 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			Net kW/Participant for IRP		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2016			132		-	132	1,095	-	1,095	1.96	-	1.96
2017			3,098		33	3,131	7,795	6,008	7,782	3.31	4.66	3.32

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
2016			132		-	132	9,803	-	9,803	1.96	-	1.96
2017			3,098		33	3,131	15,687	23,787	15,747	3.31	4.66	3.32

Table 5. EM&V Data Accumulated through Vintage Year (for IRP)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
			VA IRP		NC IRP	System IRP	VA	NC	System	VA	NC	System
2016			132		-	132	1,095	-	1,095	1.96	-	1.96
2017			3,230		33	3,262	7,929	6,008	7,916	3.22	4.66	3.23

Appendix C.14. Non-residential Prescriptive Program 2017

PROGRAM: Nonresidential Prescriptive Program
DSM Phase VI Program
Type: Energy Efficiency
Program Measure Life: 6.3 years

Table 1									Table 1								
		Participation Program Participants									Energy Savings						
		VA			NC		System				Gross kWh			NC		System	
Month	Year	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	Month	Year	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									
December	2016								December	2016							
January	2016								January	2016							
February	2016								February	2016							
March	2016								March	2016							
April	2016								April	2016							
May	2016								May	2016							
June	2016								June	2016							
July	2016								July	2016							
August	2016								August	2016							
September	2016								September	2016							
October	2016								October	2016							
November	2016								November	2016							
December	2016								December	2016							
January	2017	0		0	0		0	0	January	2017	0		0	0		0	0
February	2017	0		0	0		0	0	February	2017	0		0	0		0	0
March	2017	0		0	0		0	0	March	2017	0		0	0		0	0
April	2017	0		0	0		0	0	April	2017	0		0	0		0	0
May	2017	0		0	0		0	0	May	2017	0		0	0		0	0
June	2017	0		0	0		0	0	June	2017	0		0	0		0	0
July	2017	0		0	0		0	0	July	2017	0		0	0		0	0
August	2017	0		0	0		0	0	August	2017	0		0	0		0	0
September	2017	0		0	0		0	0	September	2017	0		0	0		0	0
October	2017	0		0	0		0	0	October	2017	0		0	0		0	0
November	2017	0		0	0		0	0	November	2017	0		0	0		0	0
December	2017	4		4	0		0	4	December	2017	58		58	0		0	58

Appendix C.14. Non-residential Prescriptive Program 2017

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
December	2016													
January	2016													
February	2016													
March	2016													
April	2016													
May	2016													
June	2016													
July	2016													
August	2016													
September	2016													
October	2016													
November	2016													
December	2016													
January	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
February	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
March	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
April	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
May	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
June	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
July	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
August	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
September	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
October	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
November	2017	0.00		0.00	0.00		0.00	0.00	-	-	-	-	-	-
December	2017	0.08		0.08	0.00		0.00	0.08	15	-	15	0.02	-	0.02

Appendix C.14. Non-residential Prescriptive Program 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
2016			-			-	-	2016			-			-	-
2017			4			-	4	2017			58			-	58

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
2016			-			-	-	2016			-			-	-
2017			4			-	4	2017			699			-	699

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
2016			-			-	-	2016			-			-	-
2017			4			-	4	2017			58			-	58

Appendix C.14. Non-residential Prescriptive Program 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
2016			-			-	-	-	-	-	-	-	-
2017			0.08			-	0.08	15	-	15	0.02	-	0.02

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
2016			-			-	-	-	-	-	-	-	-
2017			0.08			-	0.08	175	-	175	0.02	-	0.02

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
2016				-			-	-	-	-	-	-	-	-
2017				0.08			-	0.08	15	-	15	0.02	-	0.02



D. NET CUMULATIVE PERFORMANCE INDICATOR TABLES FOR VIRGINIA AND NORTH CAROLINA

Appendix D.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									Table 1												
Participation									Energy Savings												
Program Participants									Net kWh												
VA									VA												
NC									NC												
System									System												
Month	Year	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	Month	Year	VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	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	16		16				16	October	2012	3,099		3,099		3,099						3,099
November	2012	33		49				49	November	2012	6,191		9,290		9,290						9,290
December	2012	37		86				86	December	2012	5,784		15,074		15,074						15,074
January	2013	34		120				120	January	2013	4,407		19,481		19,481						19,481
February	2013	165		285				285	February	2013	26,135		45,615		45,615						45,615
March	2013	202		487				487	March	2013	31,240		76,855		76,855						76,855
April	2013	149		636				636	April	2013	21,926		98,781		98,781						98,781
May	2013	261		897				897	May	2013	40,740		139,521		139,521						139,521
June	2013	309		1,206				1,206	June	2013	47,820		187,341		187,341						187,341
July	2013	465		1,671				1,671	July	2013	72,945		260,286		260,286						260,286
August	2013	343		2,014				2,014	August	2013	51,353		311,639		311,639						311,639
September	2013	415		2,429				2,429	September	2013	63,936		375,575		375,575						375,575
October	2013	452		2,881				2,881	October	2013	63,368		438,943		438,943						438,943
November	2013	176		3,057				3,057	November	2013	27,915		466,858		466,858						466,858
December	2013	324		3,381				3,381	December	2013	52,004		518,862		518,862						518,862
January	2014	284		3,665				3,665	January	2014	39,921		558,782		558,782	0				0	558,782
February	2014	281		3,946				3,946	February	2014	36,620		595,402		595,402	0				0	595,402
March	2014	254		4,200				4,200	March	2014	35,279		630,682		630,682	0				0	630,682
April	2014	298		4,498				4,498	April	2014	41,917		672,599		672,599	0				0	672,599
May	2014	241		4,739				4,739	May	2014	31,488		704,087		704,087	0				0	704,087
June	2014	322		5,061				5,061	June	2014	44,686		748,772		748,772	299				299	749,071
July	2014	586		5,647				5,647	July	2014	57,993		806,765		806,765	0				299	807,065
August	2014	334		5,981				5,981	August	2014	34,782		841,547		841,547	487				787	842,334
September	2014	418		6,399				6,399	September	2014	41,890		883,437		883,437	759				1,546	884,983
October	2014	243		6,642				6,642	October	2014	25,347		908,785		908,785	696				2,242	911,026
November	2014	169		6,811				6,811	November	2014	16,360		925,144		925,144	1,357				3,598	926,743
December	2014	219		7,030				7,030	December	2014	22,025		947,169		947,169	1,877				5,476	949,046
January	2015	301		7,331				7,331	January	2015	5,700		952,869		952,869	705				6,180	953,574
February	2015	327		7,658				7,658	February	2015	6,142		959,010		959,010	1,146				7,326	960,156
March	2015	258		7,916				7,916	March	2015	4,436		963,447		963,447	150				7,476	963,597
April	2015	335		8,251				8,251	April	2015	4,985		968,432		968,432	922				8,398	969,354
May	2015	258		8,509				8,509	May	2015	4,787		973,219		973,219	875				9,273	974,094
June	2015	694		9,203				9,203	June	2015	11,261		984,480		984,480	1,039				10,313	985,519
July	2015	459		9,662				9,662	July	2015	7,902		992,382		992,382	888				11,200	993,270
August	2015	445		10,107				10,107	August	2015	6,741		999,123		999,123	416				11,616	999,539
September	2015	412		10,519				10,519	September	2015	6,393		1,005,515		1,005,515	1,058				12,674	1,006,573
October	2015	322		10,841				10,841	October	2015	4,742		1,010,257		1,010,257	578				13,252	1,010,835
November	2015	289		11,130				11,130	November	2015	4,978		1,015,235		1,015,235	345				13,597	1,015,580
December	2015	110		11,240				11,240	December	2015	2,103		1,017,338		1,017,338	108				13,705	1,017,446
January	2016	420		11,660				11,660	January	2016	7,722		1,025,060		1,025,060	286				13,991	1,025,346
February	2016	444		12,104				12,104	February	2016	7,923		1,032,983		1,032,983	1,260				15,251	1,034,243
March	2016	415		12,519				12,519	March	2016	5,986		1,038,970		1,038,970	541				15,792	1,039,511
April	2016	418		12,937				12,937	April	2016	6,274		1,045,243		1,045,243	606				16,398	1,045,849
May	2016	384		13,321				13,321	May	2016	6,607		1,051,851		1,051,851	584				16,982	1,052,435
June	2016	499		13,820				13,820	June	2016	8,018		1,059,869		1,059,869	1,453				18,434	1,061,322
July	2016	598		14,418				14,418	July	2016	9,680		1,069,549		1,069,549	762				19,196	1,070,311
August	2016	729		15,147				15,147	August	2016	11,831		1,081,380		1,081,380	1,368				20,564	1,082,748
September	2016	414		15,561				15,561	September	2016	7,279		1,088,660		1,088,660	483				21,047	1,089,143
October	2016	392		15,953				15,953	October	2016	6,296		1,094,955		1,094,955	756				21,804	1,095,711
November	2016	470		16,423				16,423	November	2016	8,651		1,103,607		1,103,607	1,015				22,819	1,104,622
December	2016	212		16,635				16,635	December	2016	3,332		1,106,939		1,106,939	148				22,967	1,107,087
January	2017	828		17,463				17,463	January	2017	11,769		1,118,707		1,118,707	1,227				24,194	1,119,934
February	2017	235		17,698				17,698	February	2017	3,352		1,122,060		1,122,060	467				24,662	1,122,527
March	2017	86		17,784				17,784	March	2017	1,034		1,123,094		1,123,094	145				24,807	1,123,239
April	2017	0		17,784				17,784	April	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
May	2017	0		17,784				17,784	May	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
June	2017	0		17,784				17,784	June	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
July	2017	0		17,784				17,784	July	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
August	2017	0		17,784				17,784	August	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
September	2017	0		17,784				17,784	September	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
October	2017	0		17,784				17,784	October	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
November	2017	0		17,784				17,784	November	2017	0		1,123,094		1,123,094	0				24,807	1,123,094
December	2017	0		17,784				17,784	December	2017	0		1,123,094		1,123,094	0				24,807	1,123,094

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

Table 1		Capacity Savings Net kW						Energy Savings / Participant Net kWh/Participant for IRP			Capacity Savings / Participant Net 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)						
October	2012	7		7				7	194	194	0.43		0.43
November	2012	16		23				23	190	190	0.47		0.47
December	2012	19		42				42	175	175	0.49		0.49
January	2013	17		59				59	162	162	0.49		0.49
February	2013	88		147				147	160	160	0.51		0.51
March	2013	107		253				253	158	158	0.52		0.52
April	2013	80		333				333	155	155	0.52		0.52
May	2013	145		478				478	156	156	0.53		0.53
June	2013	165		644				644	155	155	0.53		0.53
July	2013	232		875				875	156	156	0.52		0.52
August	2013	171		1,047				1,047	155	155	0.52		0.52
September	2013	210		1,257				1,257	155	155	0.52		0.52
October	2013	219		1,475				1,475	152	152	0.51		0.51
November	2013	82		1,558				1,558	153	153	0.51		0.51
December	2013	175		1,733				1,733	153	153	0.51		0.51
January	2014	153		1,886				1,886	152	152	0.51		0.51
February	2014	137		2,023				2,023	151	151	0.51		0.51
March	2014	136		2,158				2,158	150	150	0.51		0.51
April	2014	155		2,313				2,313	150	150	0.51		0.51
May	2014	126		2,439				2,439	149	149	0.51		0.51
June	2014	171		2,610				2,610	148	148	0.52		0.52
July	2014	176		2,785				2,785	143	143	0.49		0.49
August	2014	112		2,897				2,897	141	141	0.48		0.48
September	2014	134		3,031				3,031	138	138	0.47		0.47
October	2014	94		3,125				3,125	137	137	0.47		0.47
November	2014	62		3,187				3,187	136	136	0.47		0.47
December	2014	78		3,265				3,265	135	135	0.46		0.46
January	2015	15		3,280				3,280	130	130	0.45		0.45
February	2015	14		3,294				3,294	125	125	0.43		0.43
March	2015	13		3,307				3,307	122	122	0.42		0.42
April	2015	14		3,321				3,321	117	117	0.40		0.40
May	2015	14		3,335				3,335	114	114	0.39		0.39
June	2015	30		3,365				3,365	107	107	0.37		0.37
July	2015	19		3,383				3,383	103	103	0.35		0.35
August	2015	19		3,403				3,403	99	99	0.34		0.34
September	2015	17		3,420				3,420	96	96	0.33		0.33
October	2015	13		3,434				3,434	93	93	0.32		0.32
November	2015	14		3,448				3,448	91	91	0.31		0.31
December	2015	6		3,454				3,454	91	91	0.31		0.31
January	2016	18		3,472				3,472	88	88	0.30		0.30
February	2016	23		3,495				3,495	85	85	0.29		0.29
March	2016	18		3,514				3,514	83	83	0.28		0.28
April	2016	19		3,532				3,532	81	81	0.27		0.27
May	2016	18		3,550				3,550	79	79	0.27		0.27
June	2016	23		3,573				3,573	77	77	0.26		0.26
July	2016	28		3,601				3,601	74	74	0.25		0.25
August	2016	33		3,634				3,634	71	71	0.24		0.24
September	2016	19		3,653				3,653	70	70	0.23		0.23
October	2016	19		3,671				3,671	69	69	0.23		0.23
November	2016	24		3,695				3,695	67	67	0.22		0.22
December	2016	9		3,704				3,704	67	67	0.22		0.22
January	2017	38		3,742				3,742	64	64	0.21		0.21
February	2017	10		3,752				3,752	63	63	0.21		0.21
March	2017	4		3,756				3,756	63	63	0.21		0.21
April	2017	0		3,756				3,756	63	63	0.21		0.21
May	2017	0		3,756				3,756	63	63	0.21		0.21
June	2017	0		3,756				3,756	63	63	0.21		0.21
July	2017	0		3,756				3,756	63	63	0.21		0.21
August	2017	0		3,756				3,756	63	63	0.21		0.21
September	2017	0		3,756				3,756	63	63	0.21		0.21
October	2017	0		3,756				3,756	63	63	0.21		0.21
November	2017	0		3,756				3,756	63	63	0.21		0.21
December	2017	0		3,756				3,756	63	63	0.21		0.21

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Appendix D.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							Net Incremental Energy (kWh)															
			VA IRP			NC IRP	System IRP				VA IRP			VA NLR			NC IRP			NC NLR		System IRP
2012			86			-	86	2012			27,464			27,464			-			-		27,464
2013			3,295			-	3,295	2013			2,758,867			2,758,867			-			-		2,758,867
2014			3,649		44	3,693		2014			2,996,832			2,996,832			14,247			14,247		3,011,078
2015			4,210		597	4,807		2015			475,277			475,277			59,304			59,304		534,580
2016			5,395		665	6,060		2016			591,012			591,012			60,784			51,325		651,795
2017			1,149		118	1,267		2017			188,443			188,443			21,323			21,323		209,766

Table 3. EM&V Data Annualized by Vintage Year							Table 3. EM&V Data Annualized by Vintage Year															
Program Participants							Net Annualized Energy (kWh/year)															
			VA IRP			NC IRP	System IRP				VA IRP			VA NLR			NC IRP			NC NLR		System IRP
2012			86			-	86	2012			180,889			180,889			-			-		180,889
2013			3,295			-	3,295	2013			6,045,452			6,045,452			-			-		6,045,452
2014			3,649		44	3,693		2014			5,139,687			5,139,687			65,708			65,708		5,205,395
2015			4,210		597	4,807		2015			842,026			842,026			98,753			98,753		940,779
2016			5,395		665	6,060		2016			1,075,210			1,075,210			111,143			54,394		1,186,354
2017			1,149		118	1,267		2017			193,864			193,864			22,081			22,081		215,945

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							Table 4. EM&V Data Accumulated through Vintage Year (for PPI)															
Program Participants							Net (kWh)															
						NC PPI	System													NC PPI		System
2012						-		2012												-		
2013						-		2013												-		
2014					44			2014												14,247		
2015					641			2015												125,011		
2016					1,306			2016												225,244		
2017					1,380			2017												231,219		

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)															
Program Participants							Net Energy (kWh)															
			VA IRP			NC IRP	System IRP				VA IRP			VA NLR			NC IRP			NC NLR		System IRP
2012			86			-	86	2012			27,464			27,464			-			-		27,464
2013			3,381			-	3,381	2013			2,939,756			2,939,756			-			-		2,939,756
2014			7,030		44	7,074		2014			9,223,172			9,223,172			14,247			14,247		9,237,419
2015			11,240		641	11,881		2015			11,841,305			11,841,305			125,011			125,011		11,966,316
2016			16,635		1,306	17,941		2016			12,799,066			12,799,066			225,244			188,376		13,024,310
2017			17,784		1,424	19,208		2017			13,471,707			13,471,707			296,926			75,716		13,768,634

Appendix D.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		
	Net Peak Demand (kW)					Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP			NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	42			-	42	319	-	319	0.49	-	0.49
2013	1,691			-	1,691	837	-	837	0.51	-	0.51
2014	1,532			14	1,546	821	324	815	0.42	0.31	0.42
2015	189			23	212	113	99	111	0.04	0.04	0.04
2016	250			27	278	110	91	108	0.05	0.04	0.05
2017	52			6	58	164	180.70	166	0.05	0.05	0.05

Table 3. EM&V Data Annualized by Vintage Year						Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)					Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP			NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	42			-	42	2,103	-	2,103	0.49	-	0.49
2013	1,691			-	1,691	1,835	-	1,835	0.51	-	0.51
2014	1,532			14	1,546	1,409	1,493	1,410	0.42	0.31	0.42
2015	189			23	212	200	165	196	0.04	0.04	0.04
2016	250			27	278	199	167	196	0.05	0.04	0.05
2017	52			6	58	169	187	170	0.05	0.05	0.05

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)						PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)					Net kWh/Participant			Net kW/Participant		
				NC PPI	System	VA	NC	System	VA	NC	System
2012				-			-			-	
2013				-			-			-	
2014				14			324			0.31	
2015				37			195			0.06	
2016				64			172			0.05	
2017				56			168			0.04	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)						IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)					Net kWh/Participant			Net kW/Participant		
	VA IRP			NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	42			-	42	319	-	319	0.49	-	0.49
2013	1,733			-	1,733	869	-	869	0.51	-	0.51
2014	3,265			14	3,278	1,312	324	1,306	0.46	0.31	0.46
2015	3,454			37	3,491	1,053	195	1,007	0.31	0.06	0.29
2016	3,704			64	3,768	769	172	726	0.22	0.05	0.21
2017	3,756			70	3,826	758	209	717	0.21	0.05	0.20

Appendix D.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 Participation								Table 1 Energy Savings											
Program Participants								Net kWh											
		VA		NC		System		VA		NC		System		VA		NC		System	
Month	Year	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)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	System Cum for IRP	System
		[A]	[-A retired]	[E] = Σ[A] + Σ[-A retired]	[C]	[-C retired]	[G] = Σ[C] + Σ[-C retired]												
October	2012	139						139		3,189		3,189							3,189
November	2012	577						716		12,957		16,147							16,147
December	2012	493						1,209		10,999		27,145							27,145
January	2013	536						1,745		12,127		39,272							39,272
February	2013	2,124						3,859		47,924		87,197							87,197
March	2013	2,194						6,063		46,133		135,329							135,329
April	2013	876						6,939		19,345		154,674							154,674
May	2013	1,779						8,718		39,019		193,693							193,693
June	2013	1,236						9,954		27,616		221,309							221,309
July	2013	891						10,845		19,673		240,983							240,983
August	2013	570						11,415		12,476		253,458							253,458
September	2013	1,275						12,690		27,894		281,352							281,352
October	2013	1,408						14,098		30,686		312,038							312,038
November	2013	1,323						15,421		28,180		340,217							340,217
December	2013	1,424						16,845		29,600		369,817							369,817
January	2014	995						17,840		18,599		388,416							388,416
February	2014	1,178						19,018		22,592		411,008							411,008
March	2014	949						19,967		17,780		428,787							428,787
April	2014	1,865						21,832		33,914		462,701							462,701
May	2014	2,465						24,297		47,076		509,777							509,777
June	2014	3,699						27,995		67,857		577,634							577,634
July	2014	3,427						31,423		65,372		643,006							643,006
August	2014	2,727						34,150		50,683		693,689							693,689
September	2014	2,248						36,398		40,462		734,151							734,151
October	2014	1,621						38,019		31,759		765,910							765,910
November	2014	1,833						39,852		37,238		803,148							803,148
December	2014	1,680						41,532		33,156		836,304							836,304
January	2015	1,968						43,500		33,289		869,593							869,593
February	2015	1,931						45,431		30,500		900,092							900,092
March	2015	1,219						46,650		20,185		920,277							920,277
April	2015	3,141						49,791		48,505		968,783							968,783
May	2015	2,128						51,919		33,052		1,001,834							1,001,834
June	2015	2,085						54,004		31,820		1,033,655							1,033,655
July	2015	2,133						56,137		30,506		1,064,161							1,064,161
August	2015	1,931						58,068		28,564		1,092,725							1,092,725
September	2015	1,873						59,941		29,206		1,121,930							1,121,930
October	2015	1,900						61,841		31,005		1,152,935							1,152,935
November	2015	1,866						63,707		29,424		1,182,359							1,182,359
December	2015	1,939						65,646		30,939		1,213,298							1,213,298
January	2016	1,761						67,407		27,673		1,240,971							1,240,971
February	2016	2,101						69,508		33,849		1,274,820							1,274,820
March	2016	1,113						70,621		17,552		1,292,372							1,292,372
April	2016	1,726						72,347		27,594		1,319,966							1,319,966
May	2016	1,550						73,897		26,473		1,346,439							1,346,439
June	2016	1,649						75,546		28,151		1,374,590							1,374,590
July	2016	1,259						76,805		20,517		1,395,107							1,395,107
August	2016	1,754						78,559		113		1,422,487							1,422,487
September	2016	1,313						79,872		54		1,442,031							1,442,031
October	2016	1,644						81,516		54		1,466,071							1,466,071
November	2016	1,549						83,765		71		1,499,959							1,499,959
December	2016	889						84,654		67		1,513,527							1,513,527
January	2017	2,221						86,875		80		1,546,603							1,546,603
February	2017	219						87,094		29		1,550,218							1,550,218
March	2017	32						87,126		16		1,550,787							1,550,787
April	2017	0						87,126		0		1,550,787							1,550,787
May	2017	0						87,126		0		1,550,787							1,550,787
June	2017	0						87,126		0		1,550,787							1,550,787
July	2017	0						87,126		0		1,550,787							1,550,787
August	2017	0						87,126		0		1,550,787							1,550,787
September	2017	0						87,126		0		1,550,787							1,550,787
October	2017	0						87,126		0		1,550,787							1,550,787
November	2017	0						87,126		0		1,550,787							1,550,787
December	2017	0						87,126		0		1,550,787							1,550,787

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

Table 1		Capacity Savings							Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Net kW							Net kWh/Participant for IRP			Net 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	26		26				26	23		23	0.19		0.19
November	2012	106		133				133	23		23	0.19		0.19
December	2012	90		223				223	22		22	0.18		0.18
January	2013	99		322				322	23		23	0.18		0.18
February	2013	393		715				715	23		23	0.18		0.18
March	2013	396		1,111				1,111	22		22	0.18		0.18
April	2013	160		1,271				1,271	22		22	0.18		0.18
May	2013	323		1,594				1,594	22		22	0.18		0.18
June	2013	229		1,823				1,823	22		22	0.18		0.18
July	2013	162		1,985				1,985	22		22	0.18		0.18
August	2013	103		2,088				2,088	22		22	0.18		0.18
September	2013	229		2,317				2,317	22		22	0.18		0.18
October	2013	252		2,569				2,569	22		22	0.18		0.18
November	2013	232		2,801				2,801	22		22	0.18		0.18
December	2013	244		3,044				3,044	22		22	0.18		0.18
January	2014	119		3,163			0	3,163	22	-	22	0.18	-	0.18
February	2014	143		3,306			0	3,306	22	-	22	0.17	-	0.17
March	2014	113		3,419			0	3,419	21	-	21	0.17	-	0.17
April	2014	212		3,631			0	3,631	21	-	21	0.17	-	0.17
May	2014	290		3,921	1		1	3,922	21	34	21	0.16	0.21	0.16
June	2014	423		4,344	3		1	4,345	21	32	21	0.16	0.20	0.16
July	2014	398		4,742	0		1	4,743	20	20	20	0.15	0.18	0.15
August	2014	310		5,052	2		3	5,055	20	23	20	0.15	0.14	0.15
September	2014	252		5,304	2		5	5,309	20	22	20	0.15	0.13	0.15
October	2014	187		5,491	10		15	5,506	20	20	20	0.14	0.12	0.14
November	2014	213		5,704	32		47	5,751	20	19	20	0.14	0.12	0.14
December	2014	196		5,900	24		71	5,971	20	20	20	0.14	0.12	0.14
January	2015	1,804		7,704	75		146	7,851	20	19	20	0.18	0.14	0.18
February	2015	273		7,977	52		198	8,175	20	19	20	0.18	0.15	0.17
March	2015	182		8,159	44		241	8,400	20	19	20	0.17	0.15	0.17
April	2015	431		8,590	59		301	8,891	19	19	19	0.17	0.15	0.17
May	2015	296		8,886	53		353	9,239	19	19	19	0.17	0.16	0.17
June	2015	284		9,170	89		442	9,613	19	19	19	0.17	0.16	0.17
July	2015	266		9,437	47		490	9,926	19	19	19	0.17	0.16	0.17
August	2015	251		9,688	29		518	10,207	19	19	19	0.17	0.16	0.17
September	2015	260		9,948	56		575	10,523	19	19	19	0.17	0.16	0.17
October	2015	275		10,223	29		604	10,827	19	19	19	0.17	0.16	0.17
November	2015	258		10,481	17		621	11,102	19	19	19	0.16	0.16	0.16
December	2015	271		10,752	8		630	11,305	19	19	19	0.16	0.16	0.16
January	2016	246		10,998	16		646	11,644	18	19	18	0.16	0.16	0.16
February	2016	300		11,298	27		673	11,971	18	19	18	0.16	0.16	0.16
March	2016	156		11,454	20		693	12,147	18	19	18	0.16	0.16	0.16
April	2016	244		11,698	26		719	12,417	18	19	18	0.16	0.16	0.16
May	2016	237		11,936	16		735	12,671	18	19	18	0.16	0.16	0.16
June	2016	254		12,190	31		766	12,955	18	19	18	0.16	0.16	0.16
July	2016	183		12,373	18		784	13,156	18	19	18	0.16	0.16	0.16
August	2016	240		12,613	20		803	13,416	18	19	18	0.16	0.16	0.16
September	2016	175		12,788	9		812	13,600	18	19	18	0.16	0.16	0.16
October	2016	217		13,005	9		821	13,825	18	19	18	0.16	0.16	0.16
November	2016	308		13,313	13		833	14,146	18	19	18	0.16	0.16	0.16
December	2016	120		13,433	11		844	14,277	18	19	18	0.16	0.16	0.16
January	2017	310		13,743	14		858	14,601	18	19	18	0.16	0.16	0.16
February	2017	34		13,776	5		862	14,640	18	19	18	0.16	0.16	0.16
March	2017	5		13,782	3		867	14,648	18	19	18	0.16	0.16	0.16
April	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
May	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
June	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
July	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
August	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
September	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
October	2017	0		13,782	0		867	14,648	18	19	18	0.16	0.16	0.16
November	2017	0	-106	13,675	0	0	867	14,542	18	19	18	0.16	0.16	0.16
December	2017	0	-90	13,585	0	0	867	14,452	18	19	18	0.16	0.16	0.16

Appendix D.2 Residential Heat Pump Tune-up 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						Net Incremental Energy (kWh)											
		VA IRP			NC IRP	System IRP			VA IRP		VA NLR			NC IRP		NC NLR	System IRP
2012		1,209		-	1,209	2012		46,481		46,481		-		-		-	46,481
2013		15,636		-	15,636	2013		2,303,596		2,303,596		-		-		-	2,303,596
2014		24,687		581	25,268	2014		2,816,729		2,816,729		23,352		23,352		23,352	2,840,081
2015		24,114		3,307	27,421	2015		2,485,994		2,485,994		480,153		480,153		480,153	2,966,147
2016		19,008		1,274	20,282	2016		2,028,763		2,028,763		176,079		176,079		145,620	2,204,841
2017		1,402		125	1,527	2017		405,448		405,448		27,402		27,402		27,402	432,850

Table 3. EM&V Data Annualized by Vintage Year						Table 3. EM&V Data Annualized by Vintage Year										
Program Participants						Net Annualized Energy (kWh/year)										
			VA IRP		NC IRP	System IRP			VA IRP		VA NLR		NC IRP		NC NLR	System IRP
2012			1,209		-	1,209	2012		325,743		325,743		-		-	325,743
2013			15,636		-	15,636	2013		4,112,059		4,112,059		-		-	4,112,059
2014			24,687		581	25,268	2014		5,597,846		5,597,846		138,256		138,256	5,736,102
2015			24,114		3,307	27,421	2015		4,523,928		4,523,928		753,248		753,248	5,277,175
2016			19,008		1,274	20,282	2016		3,602,750		3,602,750		288,088		105,339	3,890,838
2017			1,402		125	1,527	2017		159,642		159,642		28,614		28,614	188,256

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)						Table 4. EM&V Data Accumulated through Vintage Year (for PPI)					
Program Participants						Net (kWh)					
				NC PPI	System					NC PPI	System
2012				-		2012				-	
2013				-		2013				-	
2014				581		2014				23,352	
2015				3,888		2015				618,409	
2016				5,162		2016				1,067,582	
2017				4,706		2017				1,068,738	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)													
Program Participants							Net Energy (kWh)													
			VA IRP			NC IRP	System IRP			VA IRP			VA NLR			NC IRP			NC NLR	System IRP
2012			1,209			-	1,209	2012		46,481			46,481			-			-	46,481
2013			16,845			-	16,845	2013		2,629,339			2,629,339			-			-	2,629,339
2014			41,532			581	42,113	2014		7,254,531			7,254,531			23,352			23,352	7,277,883
2015			65,646			3,888	69,534	2015		12,521,642			12,521,642			618,409			618,409	13,140,051
2016			84,654			5,162	89,816	2016		16,588,339			16,588,339			1,067,582			888,540	17,655,921
2017			66,056			5,287	71,343	2017		18,567,773			18,567,773			1,206,994			132,742	19,774,768

Appendix D.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		
Net Peak Demand (kW)							Net kWh/Participant for IRP			Net kW/Participant for IRP		
		VA IRP		NC IRP	System IRP		VA	NC	System	VA	NC	System
2012		223		-	223		38	-	38	0.18	-	0.18
2013		2,822		-	2,822		147	-	147	0.18	-	0.18
2014		2,855		71	2,927		114	40	154	0.12	0.12	0.12
2015		4,852		558	5,411		103	145	248	0.20	0.17	0.20
2016		2,681		215	2,896		107	138	245	0.14	0.17	0.14
2017		152		22	174		289	219.22	508.22	0.11	0.18	0.11

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
Net Peak Demand (kW)							Net kWh/Participant for IRP			Net kW/Participant for IRP		
		VA IRP		NC IRP	System IRP		VA	NC	System	VA	NC	System
2012		223		-	223		269	-	269	0.18	-	0.18
2013		2,822		-	2,822		263	-	263	0.18	-	0.18
2014		2,855		71	2,927		227	238	465	0.12	0.12	0.12
2015		4,852		558	5,411		188	228	416	0.20	0.17	0.20
2016		2,681		215	2,896		190	226	416	0.14	0.17	0.14
2017		152		22	174		114	229	343	0.11	0.18	0.11

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
Net Peak Demand (kW)							Net kWh/Participant			Net kW/Participant		
				NC PPI	System		VA	NC	System	VA	NC	System
2012				-				-			-	
2013				-				-			-	
2014				71				40			0.12	
2015				630				159			0.16	
2016				844				207			0.16	
2017				795				227			0.17	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
Net Peak Demand (kW)							Net kWh/Participant			Net kW/Participant		
		VA IRP		NC IRP	System IRP		VA	NC	System	VA	NC	System
2012		223		-	223		38	-	38	0.18	-	0.18
2013		3,044		-	3,044		156	-	156	0.18	-	0.18
2014		5,900		71	5,971		175	40	215	0.14	0.12	0.14
2015		10,752		630	11,382		191	159	350	0.16	0.16	0.16
2016		13,411		844	14,255		196	207	403	0.16	0.16	0.16
2017		13,585		867	14,452		216	228	444	0.16	0.16	0.16

Appendix D.3 Residential Duct Sealing Program 2012 - 2017

PROGRAM: Residential Duct Sealing
DSM Phase II Program
Type: Energy Efficiency
Program Measure Life: 18.0 years

Table 1		Participation Program Participants						Table 1		Energy Savings											
Month	Year	VA		NC		System		Net kWh		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)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	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	2		2				2	October	2012	104		104		104					104	
November	2012	6		8				8	November	2012	332		332		332					332	
December	2012	0		8				8	December	2012	0		332		332					332	
January	2013	0		8				8	January	2013	0		332		332					332	
February	2013	16		24				24	February	2013	1,141		1,474		1,474					1,474	
March	2013	4		28				28	March	2013	67		1,541		1,541					1,541	
April	2013	23		51				51	April	2013	678		2,219		2,219					2,219	
May	2013	17		68				68	May	2013	494		2,713		2,713					2,713	
June	2013	11		79				79	June	2013	464		3,177		3,177					3,177	
July	2013	4		83				83	July	2013	125		3,302		3,302					3,302	
August	2013	7		90				90	August	2013	270		3,572		3,572					3,572	
September	2013	3		93				93	September	2013	128		3,700		3,700					3,700	
October	2013	10		103				103	October	2013	211		3,911		3,911					3,911	
November	2013	6		109				109	November	2013	162		4,073		4,073					4,073	
December	2013	7		116				116	December	2013	237		4,310		4,310					4,310	
January	2014	15		131	0		0	131	January	2014	292		4,602		4,602	0		0		4,602	
February	2014	6		137	0		0	137	February	2014	107		4,709		4,709	0		0		4,709	
March	2014	3		140	0		0	140	March	2014	67		4,775		4,775	0		0		4,775	
April	2014	9		149	0		0	149	April	2014	223		4,999		4,999	0		0		4,999	
May	2014	6		155	0		0	155	May	2014	147		5,146		5,146	0		0		5,146	
June	2014	6		161	0		0	161	June	2014	189		5,335		5,335	0		0		5,335	
July	2014	9		170	0		0	170	July	2014	170		5,505		5,505	0		0		5,505	
August	2014	5		175	0		0	175	August	2014	104		5,609		5,609	0		0		5,609	
September	2014	26		201	0		0	201	September	2014	1,032		6,642		6,642	0		0		6,642	
October	2014	82		283	0		0	283	October	2014	1,798		8,440		8,440	0		0		8,440	
November	2014	117		400	0		0	400	November	2014	2,250		10,689		10,689	0		0		10,689	
December	2014	117		517	0		0	517	December	2014	2,334		13,023		13,023	0		0		13,023	
January	2015	106		623	1	106	29	624	January	2015	2,153		15,176		15,176	23		23		15,199	
February	2015	163		786	28	814	29	815	February	2015	3,020		18,196		18,196	652		674		18,871	
March	2015	132		918	85	1,003	174	1,032	March	2015	2,484		20,681		20,681	1,711		2,386		23,067	
April	2015	201		1,119	60	1,179	114	1,293	April	2015	3,596		24,276		24,276	1,253		3,639		27,916	
May	2015	233		1,352	77	1,429	251	1,680	May	2015	4,462		28,739		28,739	1,322		5,161		33,901	
June	2015	262		1,614	59	1,673	310	1,983	June	2015	4,796		33,535		33,535	1,188		6,348		39,883	
July	2015	168		1,782	12	1,794	322	2,104	July	2015	2,764		36,299		36,299	268		6,616		42,915	
August	2015	185		1,967	0	1,967	322	2,289	August	2015	3,383		39,682		39,682	0		6,616		46,298	
September	2015	134		2,101	0	2,101	322	2,423	September	2015	2,355		42,037		42,037	0		6,616		48,653	
October	2015	68		2,169	0	2,169	323	2,492	October	2015	1,191		43,228		43,228	20		6,636		49,864	
November	2015	59		2,228	0	2,228	323	2,551	November	2015	1,086		44,314		44,314	0		6,636		50,950	
December	2015	149		2,377	0	2,377	323	2,700	December	2015	2,443		46,757		46,757	0		6,636		53,392	
January	2016	53		2,430	1	2,431	324	2,754	January	2016	1,244		48,000		48,000	16		6,651		54,651	
February	2016	96		2,526	26	2,552	350	2,976	February	2016	1,851		49,851		49,851	489		7,140		56,991	
March	2016	48		2,574	66	2,640	416	2,990	March	2016	786		50,637		50,637	1,455		8,595		59,232	
April	2016	48		2,622	49	2,671	465	3,087	April	2016	859		51,496		51,496	933		9,529		61,025	
May	2016	40		2,662	25	2,687	490	3,152	May	2016	944		52,440		52,440	494		10,023		62,463	
June	2016	48		2,710	21	2,731	511	3,210	June	2016	903		53,342		53,342	341		10,365		63,706	
July	2016	14		2,724	19	2,743	530	3,254	July	2016	242		53,584		53,584	307		10,672		64,256	
August	2016	36		2,760	6	2,766	536	3,296	August	2016	590		54,174		54,174	164		10,836		65,010	
September	2016	55		2,815	1	2,816	537	3,352	September	2016	947		55,121		55,121	16		10,851		65,972	
October	2016	67		2,882	3	2,885	540	3,422	October	2016	1,268		56,389		56,389	38		10,889		67,277	
November	2016	95		2,977	0	2,977	540	3,517	November	2016	1,141		57,530		57,530	0		10,889		68,419	
December	2016	58		3,035	0	3,035	540	3,575	December	2016	779		58,309		58,309	0		10,889		69,508	
January	2017	101		3,136	8	3,144	548	3,684	January	2017	1,904		60,214		60,214	172		11,061		71,275	
February	2017	147		3,283	5	3,288	553	3,836	February	2017	2,591		63,415		63,415	76		11,137		73,552	
March	2017	16		3,299	1	3,300	554	3,853	March	2017	301		63,716		63,716	15		11,152		74,868	
April	2017	0		3,299	0	3,299	554	3,853	April	2017	0		63,716		63,716	0		11,152		74,868	
May	2017	0		3,299	0	3,299	554	3,853	May	2017	0		63,716		63,716	0		11,152		74,868	
June	2017	0		3,299	0	3,299	554	3,853	June	2017	0		63,716		63,716	0		11,152		74,868	
July	2017	0		3,299	0	3,299	554	3,853	July	2017	0		63,716		63,716	0		11,152		74,868	
August	2017	0		3,299	0	3,299	554	3,853	August	2017	0		63,716		63,716	0		11,152		74,868	
September	2017	0		3,299	0	3,299	554	3,853	September	2017	0		63,716		63,716	0		11,152		74,868	
October	2017	0		3,299	0	3,299	554	3,853	October	2017	0		63,716		63,716	0		11,152		74,868	
November	2017	0		3,299	0	3,299	554	3,853	November	2017	0		63,716		63,716	0		11,152		74,868	
December	2017	0		3,299	0	3,299	554	3,853	December	2017	0		63,716		63,716	0		11,152		74,868	

Appendix D.3 Residential Duct Sealing Program 2012 - 2017

Table 1		Capacity Savings						Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Net kW		NC		System		Net kWh / Participant for IRP			Net kW / Participant 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)	VA	NC	System	VA	NC	System
October	2012	1		1				1	52		52	0.52	0.52
November	2012	3		4				4	42		42	0.49	0.49
December	2012	0		4				4	42		42	0.49	0.49
January	2013	0		4				4	42		42	0.49	0.49
February	2013	14		17				17	61		61	0.73	0.73
March	2013	1		18				18	55		55	0.54	0.54
April	2013	8		26				26	44		44	0.51	0.51
May	2013	6		32				32	40		40	0.47	0.47
June	2013	6		37				37	40		40	0.47	0.47
July	2013	1		39				39	40		40	0.47	0.47
August	2013	3		42				42	40		40	0.47	0.47
September	2013	2		44				44	40		40	0.47	0.47
October	2013	3		46				46	38		38	0.45	0.45
November	2013	2		48				48	37		37	0.44	0.44
December	2013	3		51				51	37		37	0.44	0.44
January	2014	2		53	0		0	53	35	-	35	0.41	-
February	2014	1		54	0		0	54	34	-	34	0.40	-
March	2014	1		55	0		0	55	34	-	34	0.39	-
April	2014	2		57	0		0	57	34	-	34	0.38	-
May	2014	1		58	0		0	58	33	-	33	0.37	-
June	2014	2		59	0		0	59	33	-	33	0.37	-
July	2014	1		61	0		0	61	32	-	32	0.36	-
August	2014	1		62	0		0	62	32	-	32	0.35	-
September	2014	9		70	0		0	70	33	-	33	0.35	-
October	2014	15		86	0		0	86	30	-	30	0.30	-
November	2014	19		105	0		0	105	27	-	27	0.26	-
December	2014	20		124	0		0	124	25	-	25	0.24	-
January	2015	18		143	0		0	143	24	23	24	0.23	0.17
February	2015	26		168	5		5	173	23	23	23	0.21	0.18
March	2015	21		189	13		18	207	23	21	22	0.21	0.16
April	2015	30		220	10		28	247	22	21	22	0.20	0.16
May	2015	38		257	12		39	297	21	21	21	0.19	0.16
June	2015	41		298	9		48	346	21	20	21	0.18	0.16
July	2015	23		321	2		50	372	20	21	20	0.18	0.16
August	2015	29		350	0		50	400	20	21	20	0.18	0.16
September	2015	20		370	0		50	420	20	21	20	0.18	0.16
October	2015	10		380	0		50	430	20	21	20	0.18	0.16
November	2015	9		389	0		50	440	20	21	20	0.17	0.16
December	2015	21		410	0		50	460	20	21	20	0.17	0.16
January	2016	10		420	0		50	471	20	21	20	0.17	0.16
February	2016	16		436	4		54	490	20	20	20	0.17	0.15
March	2016	7		443	11		65	508	20	21	20	0.17	0.16
April	2016	7		450	7		72	522	20	20	20	0.17	0.16
May	2016	8		458	4		76	534	20	20	20	0.17	0.16
June	2016	8		466	3		79	544	20	20	20	0.17	0.15
July	2016	2		468	2		81	548	20	20	20	0.17	0.15
August	2016	5		473	1		82	555	20	20	20	0.17	0.15
September	2016	8		481	0		82	563	20	20	20	0.17	0.15
October	2016	11		491	0		83	574	20	20	20	0.17	0.15
November	2016	15		506	0		83	589	20	20	20	0.17	0.15
December	2016	7		513	0		83	595	19	20	20	0.17	0.15
January	2017	16		529	1		84	619	19	20	20	0.17	0.15
February	2017	22		551	1		84	635	19	20	19	0.17	0.15
March	2017	3		553	0		85	630	19	20	19	0.17	0.15
April	2017	0		553	0		85	638	19	20	19	0.17	0.15
May	2017	0		553	0		85	638	19	20	19	0.17	0.15
June	2017	0		553	0		85	638	19	20	19	0.17	0.15
July	2017	0		553	0		85	638	19	20	19	0.17	0.15
August	2017	0		553	0		85	638	19	20	19	0.17	0.15
September	2017	0		553	0		85	638	19	20	19	0.17	0.15
October	2017	0		553	0		85	638	19	20	19	0.17	0.15
November	2017	0		553	0		85	638	19	20	19	0.17	0.15
December	2017	0		553	0		85	638	19	20	19	0.17	0.15

Appendix D.3 Residential Duct Sealing Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Table 2. EM&V Data Incremental by Vintage Year						
Program Participants							Net Incremental Energy (kWh)						
	VA	IRP	NC	IRP	System	IRP		VA	IRP	NC	IRP	System	IRP
2012		8		-	8		2012	769		769		-	769
2013		108		-	108		2013	30,335		30,335		-	30,335
2014		401		-	401		2014	27,757		27,757		-	27,757
2015		1,860		323	2,183		2015	236,643		236,643		57,988	294,630
2016		658		217	875		2016	81,016		81,016		37,698	118,714
2017		264		14	278		2017	54,362		54,362		3,057	57,419

Table 3. EM&V Data Annualized by Vintage Year							Table 3. EM&V Data Annualized by Vintage Year						
Program Participants							Net Annualized Energy (kWh/year)						
	VA	IRP	NC	IRP	System	IRP		VA	IRP	NC	IRP	System	IRP
2012		8		-	8		2012	3,989		3,989		-	3,989
2013		108		-	108		2013	47,729		47,729		-	47,729
2014		401		-	401		2014	104,558		104,558		-	104,558
2015		1,860		323	2,183		2015	404,803		404,803		79,631	484,434
2016		658		217	875		2016	145,957		145,957		51,034	196,992
2017		264		14	278		2017	57,556		57,556		3,163	60,719

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							Table 4. EM&V Data Accumulated through Vintage Year (for PPI)						
Program Participants							Net (kWh)						
	VA	IRP	NC	PPI	System	IRP		VA	IRP	NC	PPI	System	IRP
2012				-			2012			-			
2013				-			2013			-			
2014				-			2014			-			
2015				323			2015			57,988			
2016				540			2016			117,328			
2017				554			2017			133,722			

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)						
Program Participants							Net Energy (kWh)						
	VA	IRP	NC	IRP	System	IRP		VA	IRP	NC	IRP	System	IRP
2012		8		-	8		2012	769		769		-	769
2013		116		-	116		2013	34,324		34,324		-	34,324
2014		517		-	517		2014	79,474		79,474		-	79,474
2015		2,377		323	2,700		2015	392,918		392,918		57,988	450,906
2016		3,035		540	3,575		2016	642,095		642,095		117,328	759,424
2017		3,299		554	3,853		2017	761,399		761,399		133,722	895,120

Appendix D.3 Residential Duct Sealing Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	96	-	96	0.49	-	0.49
2013	47				-	47	281	-	281	0.43	-	0.43
2014	74				-	74	69	-	69	0.18	-	0.18
2015	285				50	336	127	180	135	0.15	0.16	0.15
2016	103				32	135	123	174	136	0.16	0.15	0.15
2017	41				2	43	208	218.32	207	0.15	0.14	0.15

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	499	-	499	0.49	-	0.49
2013	47				-	47	442	-	442	0.43	-	0.43
2014	74				-	74	261	-	261	0.18	-	0.18
2015	285				50	336	218	247	222	0.15	0.16	0.15
2016	103				32	135	222	235	225	0.16	0.15	0.15
2017	41				2	43	218	226	218	0.15	0.14	0.15

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA				NC PPI	System	VA	NC	System	VA	NC	System
2012					-			-			-	
2013					-			-			-	
2014					-			-			-	
2015					50			180			0.16	
2016					83			217			0.15	
2017					85			241			0.15	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	96	-	96	0.49	-	0.49
2013	51				-	51	296	-	296	0.44	-	0.44
2014	124				-	124	154	-	154	0.24	-	0.24
2015	410				50	460	165	180	167	0.17	0.16	0.17
2016	513				83	595	212	217	212	0.17	0.15	0.17
2017	553				85	638	231	241	232	0.17	0.15	0.17

Appendix D.4 Residential Home Energy Check-up Program 2012 - 2017

PROGRAM: Residential Home Energy Check-Up
DSW Phase II Program
Type: Energy Efficiency
Program Measure Life: 10.0 years

Table 1										Table 1									
Participation Program Participants										Energy Savings Net kWh									
Month	Year	VA		NC		System		Month	Year	VA		NC		System		Month	Year	VA	
		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)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)
		[A]	[-A retired]	[E] = Σ[A] + Σ[-A retired]	[C]	[-C retired]	[G] = Σ[C] + Σ[-C retired]												
October	2012	4		4				4	October	2012	308			308					308
November	2012	6		10				10	November	2012	637			637					637
December	2012	21		31				31	December	2012	1,669			2,506					2,506
January	2013	22		53				53	January	2013	1,540			4,046					4,046
February	2013	37		90				90	February	2013	2,624			6,670					6,670
March	2013	14		104				104	March	2013	1,112			7,781					7,781
April	2013	27		131				131	April	2013	9,790			17,571					17,571
May	2013	42		173				173	May	2013	3,305			13,094					13,094
June	2013	15		188				188	June	2013	1,109			14,203					14,203
July	2013	15		203				203	July	2013	1,264			15,467					15,467
August	2013	61		264				264	August	2013	4,763			20,230					20,230
September	2013	75		339				339	September	2013	5,745			25,975					25,975
October	2013	219		558				558	October	2013	16,391			42,366					42,366
November	2013	305		863				863	November	2013	23,114			65,480					65,480
December	2013	737		1,600				1,600	December	2013	55,416			120,894					120,894
January	2014	540		2,140	0		0	2,140	January	2014	26,655			147,579	0		0		147,579
February	2014	942		3,082	0		0	3,082	February	2014	48,483			196,062	0		0		196,062
March	2014	877		3,959	0		0	3,959	March	2014	42,643			238,705	0		0		238,705
April	2014	1,372		5,331	0		0	5,331	April	2014	71,333			310,038	0		0		310,038
May	2014	1,247		6,578	0		0	6,578	May	2014	61,315			371,353	0		0		371,353
June	2014	1,751		8,329	0		0	8,329	June	2014	83,644			454,997	0		0		454,997
July	2014	2,023		10,352	0		0	10,352	July	2014	90,716			545,713	0		0		545,713
August	2014	2,079		12,431	0		0	12,431	August	2014	98,802			644,515	0		0		644,515
September	2014	3,222		15,653	0		0	15,653	September	2014	203,811			848,325	0		0		848,325
October	2014	1,739		17,392	0		0	17,392	October	2014	110,865			959,191	0		0		959,191
November	2014	544		17,936	0		0	17,936	November	2014	36,501			995,721	0		0		995,721
December	2014	3,366		21,302	0		0	21,302	December	2014	207,077			1,202,868	0		0		1,202,868
January	2015	1,829		23,131	0		0	23,131	January	2015	93,614			1,296,482	0		0		1,296,482
February	2015	985		24,116	152		152	24,268	February	2015	50,842			1,347,324	12,448		12,448		1,359,772
March	2015	957		25,073	156		308	25,381	March	2015	47,532			1,394,857	10,919		23,368		1,418,224
April	2015	906		25,979	128		436	26,415	April	2015	41,987			1,436,844	7,814		31,182		1,468,026
May	2015	1,038		27,017	237		673	27,690	May	2015	46,508			1,483,351	13,239		44,421		1,527,772
June	2015	1,227		28,244	200		873	29,117	June	2015	61,752			1,545,104	11,233		55,654		1,599,758
July	2015	1,219		29,463	86		959	30,422	July	2015	61,442			1,606,545	4,218		59,872		1,666,417
August	2015	1,355		30,818	5		964	31,782	August	2015	69,478			1,676,023	2,75		60,147		1,736,170
September	2015	1,500		32,318	27		991	33,309	September	2015	84,995			1,761,019	1,653		61,799		1,822,818
October	2015	1,161		33,479	4		995	34,434	October	2015	58,808			1,819,826	269		62,068		1,881,895
November	2015	1,107		34,586	0		995	35,581	November	2015	65,301			1,885,127	0		62,068		1,947,196
December	2015	616		35,162	1		996	36,158	December	2015	33,697			1,918,824	75		62,143		1,980,967
January	2016	737		35,899	3		999	36,893	January	2016	32,522			1,951,346	123		62,266		2,013,612
February	2016	889		36,788	1		1,000	37,783	February	2016	45,183			1,996,529	34		62,300		2,058,828
March	2016	1,301		38,089	0		1,000	39,089	March	2016	36,223			2,052,752	0		62,300		2,115,052
April	2016	1,804		39,893	0		1,000	40,893	April	2016	77,067			2,129,819	0		62,300		2,192,119
May	2016	2,111		42,104	0		1,000	43,104	May	2016	99,643			2,228,863	0		62,300		2,291,162
June	2016	1,360		43,464	0		1,000	44,464	June	2016	55,245			2,284,208	0		62,300		2,346,507
July	2016	1,348		44,812	0		1,000	45,812	July	2016	64,950			2,349,158	0		62,300		2,411,458
August	2016	1,913		46,725	0		1,000	47,725	August	2016	94,327			2,443,485	0		62,300		2,505,785
September	2016	880		47,605	0		1,000	48,605	September	2016	43,829			2,487,314	0		62,300		2,549,614
October	2016	1,074		48,679	0		1,000	49,679	October	2016	50,238			2,537,552	0		62,300		2,599,850
November	2016	1,328		50,007	0		1,000	51,007	November	2016	72,174			2,609,726	0		62,300		2,672,026
December	2016	407		50,414	0		1,000	51,414	December	2016	21,855			2,631,582	0		62,300		2,693,881
January	2017	1,069		51,483	5		1,005	52,488	January	2017	62,893			2,694,475	598		62,897		2,757,372
February	2017	377		51,860	39		1,044	52,904	February	2017	20,705			2,715,180	2,583		65,481		2,780,660
March	2017	54		51,914	5		1,049	52,963	March	2017	3,102			2,718,282	491		65,972		2,784,253
April	2017	0		51,914	0		1,049	52,963	April	2017	0			2,718,282	0		65,972		2,784,253
May	2017	0		51,914	0		1,049	52,963	May	2017	0			2,718,282	0		65,972		2,784,253
June	2017	0		51,914	0		1,049	52,963	June	2017	0			2,718,282	0		65,972		2,784,253
July	2017	0		51,914	0		1,049	52,963	July	2017	0			2,718,282	0		65,972		2,784,253
August	2017	0		51,914	0		1,049	52,963	August	2017	0			2,718,282	0		65,972		2,784,253
September	2017	0		51,914	0		1,049	52,963	September	2017	0			2,718,282	0		65,972		2,784,253
October	2017	0		51,914	0		1,049	52,963	October	2017	0			2,718,282	0		65,972		2,784,253
November	2017	0		51,914	0		1,049	52,963	November	2017	0			2,718,282	0		65,972		2,784,253
December	2017	0		51,914	0		1,049	52,963	December	2017	0			2,718,282	0		65,972		2,784,253

Appendix D.4 Residential Home Energy Check-up Program 2012 - 2017

Table 1		Capacity Savings							Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Net kW							Net kWh/Participant for IRP			Net kW/Participant for IRP		
		VA		NC		System		System Cum for IRP	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)							
October	2012	1		1				1	77			0.13		0.13
November	2012	1		1				1	84		84	0.13		0.13
December	2012	2		4				4	81		81	0.12		0.12
January	2013	2		6				6	76		76	0.12		0.12
February	2013	4		10				10	74		74	0.12		0.12
March	2013	2		12				12	75		75	0.12		0.12
April	2013	3		15				15	75		75	0.12		0.12
May	2013	5		20				20	76		76	0.12		0.12
June	2013	2		22				22	76		76	0.12		0.12
July	2013	2		24				24	76		76	0.12		0.12
August	2013	7		30				30	77		77	0.12		0.12
September	2013	9		39				39	77		77	0.12		0.12
October	2013	24		63				63	76		76	0.11		0.11
November	2013	34		97				97	76		76	0.11		0.11
December	2013	78		176				176	76		76	0.11		0.11
January	2014	36		211	0		0	211	69	-	69	0.10	-	0.10
February	2014	64		276	0		0	276	64	-	64	0.09	-	0.09
March	2014	58		333	0		0	333	60	-	60	0.08	-	0.08
April	2014	94		427	0		0	427	58	-	58	0.08	-	0.08
May	2014	81		508	0		0	508	56	-	56	0.08	-	0.08
June	2014	116		624	0		0	624	55	-	55	0.07	-	0.07
July	2014	138		761	0		0	761	53	-	53	0.07	-	0.07
August	2014	141		903	0		0	903	52	-	52	0.07	-	0.07
September	2014	236		1,139	0		0	1,139	54	-	54	0.07	-	0.07
October	2014	124		1,262	0		0	1,262	55	-	55	0.07	-	0.07
November	2014	37		1,299	0		0	1,299	56	-	56	0.07	-	0.07
December	2014	234		1,534	0		0	1,534	56	-	56	0.07	-	0.07
January	2015	118		1,652	0		0	1,652	56	-	56	0.07	-	0.07
February	2015	65		1,717	13		13	1,729	56	82	56	0.07	0.08	0.07
March	2015	62		1,779	11		24	1,803	56	76	56	0.07	0.08	0.07
April	2015	52		1,831	8		32	1,864	55	72	56	0.07	0.07	0.07
May	2015	58		1,890	14		46	1,936	55	66	55	0.07	0.07	0.07
June	2015	77		1,967	12		58	2,025	55	64	55	0.07	0.07	0.07
July	2015	74		2,040	5		63	2,103	55	62	55	0.07	0.07	0.07
August	2015	83		2,123	0		63	2,187	54	62	55	0.07	0.07	0.07
September	2015	98		2,221	2		65	2,286	54	62	55	0.07	0.07	0.07
October	2015	70		2,291	0		65	2,356	54	62	55	0.07	0.07	0.07
November	2015	76		2,367	0		65	2,432	55	62	55	0.07	0.07	0.07
December	2015	41		2,407	0		65	2,473	55	62	55	0.07	0.07	0.07
January	2016	41		2,448	0		66	2,514	54	62	55	0.07	0.07	0.07
February	2016	54		2,503	0		66	2,568	54	62	54	0.07	0.07	0.07
March	2016	71		2,573	0		66	2,639	54	62	54	0.07	0.07	0.07
April	2016	98		2,671	0		66	2,738	53	62	54	0.07	0.07	0.07
May	2016	125		2,796	0		66	2,862	53	62	53	0.07	0.07	0.07
June	2016	71		2,867	0		66	2,933	52	62	53	0.07	0.07	0.07
July	2016	79		2,946	0		66	3,012	52	62	53	0.07	0.07	0.07
August	2016	111		3,057	0		66	3,122	52	62	53	0.07	0.07	0.07
September	2016	52		3,109	0		66	3,175	52	62	52	0.07	0.07	0.07
October	2016	60		3,169	0		66	3,239	52	62	52	0.07	0.07	0.07
November	2016	83		3,252	0		66	3,318	52	62	52	0.07	0.07	0.07
December	2016	26		3,278	0		66	3,344	52	62	52	0.07	0.07	0.07
January	2017	69		3,348	0		66	3,414	52	63	53	0.07	0.07	0.07
February	2017	24		3,371	2		68	3,440	52	63	53	0.07	0.07	0.07
March	2017	3		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
April	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
May	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
June	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
July	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
August	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
September	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
October	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
November	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07
December	2017	0		3,374	0		69	3,443	52	63	53	0.07	0.07	0.07

Appendix D.4 Residential Home Energy Check-up Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year										Table 2. EM&V Data Incremental by Vintage Year										
Program Participants					Net Incremental Energy (kWh)					Program Participants					Net Incremental Energy (kWh)					
	VA IRP			NC IRP		System IRP					VA IRP			VA NLR			NC IRP		NC NLR	System IRP
2012	31			-		31				2012	3,650			3,650			-		-	3,650
2013	1,569			-		1,569				2013	315,928			315,928			-		-	315,928
2014	19,702			-		19,702				2014	5,464,413			5,464,413			-		-	5,464,413
2015	13,860			996		14,856				2015	4,736,906			4,736,906			535,170		535,170	5,272,076
2016	15,252			-		15,256				2016	4,676,448			4,676,448			1,845		1,532	4,678,293
2017	1,500			49		1,549				2017	1,013,491			1,013,491			40,499		40,499	1,053,990

Table 3. EM&V Data Annualized by Vintage Year										Table 3. EM&V Data Annualized by Vintage Year										
Program Participants					Net Annualized Energy (kWh/year)					Program Participants					Net Annualized Energy (kWh/year)					
	VA IRP			NC IRP		System IRP					VA IRP			VA NLR			NC IRP		NC NLR	System IRP
2012	31			-		31				2012	30,066			30,066			-		-	30,066
2013	1,569			-		1,569				2013	1,420,658			1,420,658			-		-	1,420,658
2014	19,702			-		19,702				2014	12,983,696			12,983,696			-		-	12,983,696
2015	13,860			996		14,856				2015	8,591,467			8,591,467			745,716		745,716	9,337,183
2016	15,252			-		15,256				2016	8,553,094			8,553,094			1,879		-	8,554,973
2017	1,500			49		1,549				2017	1,040,400			1,040,400			44,065		44,065	1,084,465

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)										Table 4. EM&V Data Accumulated through Vintage Year (for PPI)									
Program Participants					Net (kWh)					Program Participants					Net (kWh)				
				NC PPI		System										NC PPI			System
2012				-		-				2012						-			-
2013				-		-				2013						-			-
2014				-		-				2014						-			-
2015				996		996				2015						535,170			535,170
2016				1,000		1,000				2016						747,560			747,560
2017				1,049		1,049				2017						788,094			788,094

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)										Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)										
Program Participants					Net Energy (kWh)					Program Participants					Net Energy (kWh)					
	VA IRP			NC IRP		System IRP					VA IRP			VA NLR			NC IRP		NC NLR	System IRP
2012	31			-		31				2012	3,650			3,650			-		-	3,650
2013	1,600			-		1,600				2013	345,994			345,994			-		-	345,994
2014	21,302			-		21,302				2014	6,915,137			6,915,137			-		-	6,915,137
2015	35,162			996		36,158				2015	19,171,326			19,171,326			535,170		535,170	19,706,496
2016	50,414			1,000		51,414				2016	27,702,335			27,702,335			747,560		622,961	28,449,896
2017	51,914			1,049		52,963				2017	32,592,472			32,592,472			788,094		40,499	33,380,566

Appendix D.4 Residential Home Energy Check-up Program 2012 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	118	-	118	0.12	-	0.12
2013	172				-	172	201	-	201	0.11	-	0.11
2014	1,358				-	1,358	277	-	277	0.07	-	0.07
2015	873				65	939	342	537	355	0.06	0.07	0.06
2016	871				0.21	871	307	461	307	0.06	0.05	0.06
2017	96				3	99	676	826.52	680	0.06	0.06	0.06

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	970	-	970	0.12	-	0.12
2013	172				-	172	905	-	905	0.11	-	0.11
2014	1,358				-	1,358	659	-	659	0.07	-	0.07
2015	873				65	939	620	749	629	0.06	0.07	0.06
2016	871				0.21	871	561	470	561	0.06	0.05	0.06
2017	96				3	99	694	899	700	0.06	0.06	0.06

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
					NC PPI	System	VA	NC	System	VA	NC	System
2012					-	-	-	-	-	-	-	-
2013					-	-	-	-	-	-	-	-
2014					-	-	-	-	-	-	-	-
2015					65	65	537				0.07	
2016					66	66	748				0.07	
2017					69	69	751				0.07	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2012	4				-	4	118	-	118	0.12	-	0.12
2013	176				-	176	216	-	216	0.11	-	0.11
2014	1,534				-	1,534	325	-	325	0.07	-	0.07
2015	2,407				65	2,473	545	537	545	0.07	0.07	0.07
2016	3,278				66	3,344	549	748	553	0.07	0.07	0.07
2017	3,374				69	3,443	628	751	630	0.07	0.07	0.07

Appendix D.5 Residential Income and Age Qualifying Home Improvement Program 2015 - 2017

PROGRAM: Residential Income and Age Qualifying Home Improvement Program
DSM Phase IV Program
Type: Energy Efficiency
Program Measure Life: 14.0 years

Table 1		Participation								Table 1		Energy Savings													
		Program Participants										Net kWh													
		VA						System				VA						NC						System	
Month	Year	VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired) [E] = Σ[A] + Σ[-A retired]	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP	Month	Year	VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	System Cum for IRP				
		[A]	[-A retired]																						
January	2015	0						0	January	2015	0			0											
February	2015	0						0	February	2015	0			0											
March	2015	0						0	March	2015	0			0							0				
April	2015	0						0	April	2015	0			0							0				
May	2015	0						0	May	2015	0			0							0				
June	2015	0						0	June	2015	0			0							0				
July	2015	0						0	July	2015	0			0							0				
August	2015	0						0	August	2015	0			0							0				
September	2015	0						0	September	2015	0			0							0				
October	2015	44		44				44	October	2015	1,825		1,825		1,825						1,825				
November	2015	712		756				756	November	2015	43,106		44,931		44,931						44,931				
December	2015	767		1,523				1,523	December	2015	20,684		65,615		65,615						65,615				
January	2016	114		1,637	0			1,637	January	2016	3,631		69,246		69,246	0					69,246				
February	2016	224		1,861	0			1,861	February	2016	5,519		74,765		74,765	0					74,765				
March	2016	295		2,156	0			2,156	March	2016	11,453		86,218		86,218	0					86,218				
April	2016	544		2,700	0			2,700	April	2016	15,292		101,510		101,510	0					101,510				
May	2016	319		3,019	0			3,019	May	2016	7,940		109,450		109,450	0					109,450				
June	2016	623		3,642	0			3,642	June	2016	17,718		127,168		127,168	0					127,168				
July	2016	638		4,280	20			4,300	July	2016	19,386		146,554		146,554	779			779		147,333				
August	2016	1,891		6,171	12			6,203	August	2016	50,978		197,532		197,532	498			1,277		198,809				
September	2016	769		6,940	9			6,981	September	2016	24,586		222,118		222,118	435			1,712		223,830				
October	2016	904		7,844	25			7,910	October	2016	22,140		244,258		244,258	998			2,710		246,969				
November	2016	1,566		9,410	37			9,513	November	2016	45,168		289,427		289,427	2,372			5,082		294,509				
December	2016	516		9,926	54			10,083	December	2016	14,555		303,982		303,982	2,010			7,092		311,073				
January	2017	428		10,354	42			10,517	January	2017	14,682		318,663		318,663	2,738			9,829		328,493				
February	2017	202		10,556	16			10,771	February	2017	3,927		322,590		322,590	696			10,526		333,116				
March	2017	737		11,293	12			11,529	March	2017	31,043		353,633		353,633	735			11,260		364,893				
April	2017	507		11,800	13			12,040	April	2017	14,799		368,432		368,432	475			11,735		380,167				
May	2017	617		12,417	6			12,663	May	2017	20,750		389,182		389,182	288			12,023		401,205				
June	2017	585		13,002	4			13,259	June	2017	14,720		403,902		403,902	180			12,203		416,105				
July	2017	443		13,445	2			13,697	July	2017	9,294		413,196		413,196	121			12,324		425,520				
August	2017	252		13,697	4			13,953	August	2017	8,028		421,225		421,225	365			12,689		433,914				
September	2017	101		13,798	2			14,059	September	2017	2,272		423,496		423,496	354			13,043		436,540				
October	2017	513		14,311	0			14,569	October	2017	12,427		435,924		435,924	0			13,043		448,967				
November	2017	822		15,133	7			15,398	November	2017	16,075		451,999		451,999	291			13,334		465,333				
December	2017	763		15,896	22			16,183	December	2017	14,098		466,097		466,097	1,077			14,412		480,509				

Appendix D.5 Residential Income and Age Qualifying Home Improvement Program 2015 - 2017

Table 1		Capacity Savings							Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Net kW							Net kWh/Participant for IRP			Net kW/Participant for IRP		
		VA		NC		System		System Cum for IRP	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)							
January	2015	0		0					-	-	-	-	-	-
February	2015	0		0					-	-	-	-	-	-
March	2015	0		0			0	0	-	-	-	-	-	-
April	2015	0		0			0	0	-	-	-	-	-	-
May	2015	0		0			0	0	-	-	-	-	-	-
June	2015	0		0			0	0	-	-	-	-	-	-
July	2015	0		0			0	0	-	-	-	-	-	-
August	2015	0		0			0	0	-	-	-	-	-	-
September	2015	0		0			0	0	-	-	-	-	-	-
October	2015	2		2			0	2	41	-	41	0.05	-	0.05
November	2015	36		38			0	38	59	-	59	0.05	-	0.05
December	2015	26		64			0	64	43	-	43	0.04	-	0.04
January	2016	4		68	0		0	68	42	-	42	0.04	-	0.04
February	2016	9		78	0		0	78	40	-	40	0.04	-	0.04
March	2016	14		92	0		0	92	40	-	40	0.04	-	0.04
April	2016	20		112	0		0	112	38	-	38	0.04	-	0.04
May	2016	10		122	0		0	122	36	-	36	0.04	-	0.04
June	2016	23		145	0		0	145	35	-	35	0.04	-	0.04
July	2016	24		169	1		1	170	34	39	34	0.04	0.05	0.04
August	2016	69		239	1		2	240	32	40	32	0.04	0.05	0.04
September	2016	28		267	1		2	269	32	42	32	0.04	0.05	0.04
October	2016	31		297	1		3	301	31	41	31	0.04	0.05	0.04
November	2016	67		365	3		6	371	31	49	31	0.04	0.06	0.04
December	2016	18		383	2		8	391	31	45	31	0.04	0.05	0.04
January	2017	15		398	3		11	409	31	49	31	0.04	0.06	0.04
February	2017	6		404	1		12	415	31	49	31	0.04	0.06	0.04
March	2017	29		433	1		13	446	31	50	32	0.04	0.06	0.04
April	2017	17		450	1		13	463	31	49	32	0.04	0.06	0.04
May	2017	23		473	0		14	486	31	49	32	0.04	0.06	0.04
June	2017	17		490	0		14	504	31	49	31	0.04	0.06	0.04
July	2017	12		502	0		14	516	31	49	31	0.04	0.06	0.04
August	2017	7		509	0		14	524	31	50	31	0.04	0.06	0.04
September	2017	3		512	0		14	527	31	51	31	0.04	0.06	0.04
October	2017	13		526	0		14	540	30	51	31	0.04	0.06	0.04
November	2017	21		547	0		15	562	30	50	30	0.04	0.06	0.04
December	2017	18		565	1		16	581	29	50	30	0.04	0.06	0.04

Appendix D.5 Residential Income and Age Qualifying Home Improvement Program 2015 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Table 2. EM&V Data Incremental by Vintage Year							
Program Participants							Net Incremental Energy (kWh)							
			VA IRP		NC IRP	System IRP			VA IRP	VA NLR		NC IRP	NC NLR	System IRP
2015			1,523		-	1,523	2015		112,372	112,372		-	-	112,372
2016			8,403		157	8,560	2016		1,184,845	1,184,845		18,652	18,652	1,203,497
2017			5,970		130	6,100	2017		1,120,561	1,120,561		61,320	61,320	1,181,880

Table 3. EM&V Data Annualized by Vintage Year							Table 3. EM&V Data Annualized by Vintage Year									
	Program Participants							Net Annualized Energy (kWh)								
			VA IRP			NC IRP		System IRP		VA IRP	VA NLR		NC IRP		NC NLR	System IRP
2015			1,523			-	1,523	2015		787,384			787,384			787,384
2016			8,403			157	8,560	2016		2,860,394			2,860,394	85,103	85,103	2,945,497
2017			5,970			130	6,100	2017		1,945,390			1,945,390	87,835	87,835	2,033,225

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)								Table 4. EM&V Data Accumulated through Vintage Year (for PPI)									
Program Participants								Net Energy (kWh) for PPI									
	VA					NC PPI	System		VA						NC PPI		System
2015						-		2015							-		
2016						157		2016							18,652		
2017						287		2017							146,423		

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)										Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)									
Program Participants										Net Energy (kWh)									
			VA IRP			NC IRP	System IRP			VA IRP		VA NLR			NC IRP		NC NLR	System IRP	
2015			1,523		-		1,523	2015		112,372		112,372			-		-	112,372	
2016			9,926		157		10,083	2016		1,972,230		1,972,230			18,652		1,990,882		
2017			15,896		287		16,183	2017		4,768,339		4,768,339			146,423		4,914,762		

Appendix D.5 Residential Income and Age Qualifying Home Improvement Program 2015 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2015	64						74	-	74	0.04	-	0.04
2016	318					8	327	141	119	0.04	0.05	0.04
2017	182					7	190	188	471.69	0.03	0.06	0.03

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2015	64						517	-	517	0.04	-	0.04
2016	318					8	327	340	542	0.04	0.05	0.04
2017	182					7	190	326	676	0.03	0.06	0.03

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2015												
2016						8			119		0.05	
2017						16			510		0.06	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2015	64						74	-	74	0.04	-	0.04
2016	383					8	391	199	119	0.04	0.05	0.04
2017	565					16	581	300	510	0.04	0.06	0.04

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Appendix D.6 Residential Appliance Recycling Program 2015 - 2017

PROGRAM: Residential Appliance Recycling Program
 DSM Phase IV Program
 Type: Energy Efficiency
 Program Measure Life: 8.0 years

Table 1		Participation Program Participants							Table 1		Energy Savings												
		VA		NC			System				VA		Net kWh										
Month	Year	VA Monthly New	VA Monthly Retired	VA Cum. for IRP [E] = Σ[A] + Σ[-A retired]	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	System Cum for IRP	Month	Year	VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	System Cum for IRP		
		[A]	[-A retired]																				
January	2015	0	0	0	0	0	0	0	January	2015	0	0	0	0	0	0	0	0	0	0	0		
February	2015	0	0	0	0	0	0	0	February	2015	0	0	0	0	0	0	0	0	0	0	0		
March	2015	0	0	0	0	0	0	0	March	2015	0	0	0	0	0	0	0	0	0	0	0		
April	2015	0	0	0	0	0	0	0	April	2015	0	0	0	0	0	0	0	0	0	0	0		
May	2015	0	0	0	0	0	0	0	May	2015	0	0	0	0	0	0	0	0	0	0	0		
June	2015	0	0	0	0	0	0	0	June	2015	0	0	0	0	0	0	0	0	0	0	0		
July	2015	0	0	0	0	0	0	0	July	2015	0	0	0	0	0	0	0	0	0	0	0		
August	2015	0	0	0	0	0	0	0	August	2015	0	0	0	0	0	0	0	0	0	0	0		
September	2015	921	0	921	0	0	0	0	September	2015	67,411	0	67,411	0	67,411	0	0	0	0	0	67,411		
October	2015	1,008	0	1,929	0	0	0	0	October	2015	75,965	0	142,476	0	142,476	0	0	0	0	0	142,476		
November	2015	1,079	0	2,999	0	0	0	0	November	2015	74,711	0	217,187	0	217,187	0	0	0	0	0	217,187		
December	2015	207	0	3,206	0	0	0	0	December	2015	14,991	0	232,178	0	232,178	0	0	0	0	0	232,178		
January	2016	203	0	3,409	0	0	0	0	January	2016	3,196	0	235,374	0	235,374	0	0	0	0	0	235,374		
February	2016	4	0	3,413	0	0	0	0	February	2016	322	0	235,696	0	235,696	0	0	0	0	0	235,696		
March	2016	876	0	4,289	0	0	0	0	March	2016	50,744	0	286,440	0	286,440	0	0	0	0	0	286,440		
April	2016	653	0	4,942	0	0	0	0	April	2016	40,391	0	326,831	0	326,831	0	0	0	0	0	326,831		
May	2016	525	0	5,467	0	0	0	0	May	2016	31,450	0	358,301	0	358,301	0	0	0	0	0	358,301		
June	2016	1,204	0	6,671	0	0	0	0	June	2016	76,064	0	434,366	0	434,366	0	0	0	0	0	434,366		
July	2016	521	0	7,192	0	0	0	0	July	2016	32,906	0	467,271	0	467,271	0	0	0	0	0	467,271		
August	2016	1,102	0	8,294	0	0	0	0	August	2016	73,947	0	541,218	0	541,218	0	0	0	0	0	541,218		
September	2016	671	0	8,965	0	0	0	0	September	2016	44,800	0	586,018	0	586,018	0	0	0	0	0	586,018		
October	2016	615	0	9,580	0	0	0	0	October	2016	40,735	0	626,752	0	626,752	0	0	0	0	0	626,752		
November	2016	713	0	10,293	0	0	0	0	November	2016	47,437	0	674,190	0	674,190	0	0	0	0	0	674,190		
December	2016	648	0	10,941	0	0	0	0	December	2016	42,582	0	716,772	0	716,772	0	0	0	0	0	716,772		
January	2017	816	0	11,757	0	0	0	0	January	2017	52,108	0	768,880	0	768,880	0	0	0	0	0	768,880		
February	2017	313	0	12,070	0	0	0	0	February	2017	19,757	0	788,637	0	788,637	0	0	0	0	0	788,637		
March	2017	416	0	12,486	0	0	0	0	March	2017	25,379	0	814,016	0	814,016	0	0	0	0	0	814,016		
April	2017	511	0	12,997	0	0	0	0	April	2017	12,073	0	846,089	0	846,089	0	0	0	0	0	846,089		
May	2017	584	0	13,581	0	0	0	0	May	2017	35,262	0	881,351	0	881,351	0	0	0	0	0	881,351		
June	2017	475	0	14,056	0	0	0	0	June	2017	27,777	0	909,627	0	909,627	0	0	0	0	0	909,627		
July	2017	16	0	14,072	0	0	0	0	July	2017	699	0	910,326	0	910,326	0	0	0	0	0	910,326		
August	2017	0	0	14,072	0	0	0	0	August	2017	0	0	910,326	0	910,326	0	0	0	0	0	910,326		
September	2017	0	0	14,072	0	0	0	0	September	2017	0	0	910,326	0	910,326	0	0	0	0	0	910,326		
October	2017	0	0	14,072	0	0	0	0	October	2017	0	0	910,326	0	910,326	0	0	0	0	0	910,326		
November	2017	0	0	14,072	0	0	0	0	November	2017	0	0	910,326	0	910,326	0	0	0	0	0	910,326		
December	2017	0	0	14,072	0	0	0	0	December	2017	0	0	910,326	0	910,326	0	0	0	0	0	910,326		

Appendix D.6 Residential Appliance Recycling Program 2015 - 2017

Table 1		Capacity Savings							Energy Savings / Participant			Capacity Savings / Participant			
Month	Year	Net kW							Net kWh/Participant for IRP			Net 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
January	2015	0		0					-	-	-	-	-	-	
February	2015	0		0					-	-	-	-	-	-	
March	2015	0		0				0	-	-	-	-	-	-	
April	2015	0		0				0	-	-	-	-	-	-	
May	2015	0		0				0	-	-	-	-	-	-	
June	2015	0		0				0	-	-	-	-	-	-	
July	2015	0		0				0	-	-	-	-	-	-	
August	2015	0		0				0	-	-	-	-	-	-	
September	2015	121		121				0	121	73	-	73	0.13	-	0.13
October	2015	135		256				0	256	74	-	74	0.13	-	0.13
November	2015	134		390				0	390	72	-	72	0.13	-	0.13
December	2015	27		417				0	417	72	-	72	0.13	-	0.13
January	2016	6		423	0			0	423	69	-	69	0.12	-	0.12
February	2016	1		423	0			0	423	69	-	69	0.12	-	0.12
March	2016	91		515	0			0	515	67	-	67	0.12	-	0.12
April	2016	73		587	0			0	587	66	-	66	0.12	-	0.12
May	2016	56		644	0			0	644	66	-	66	0.12	-	0.12
June	2016	137		780	0			0	780	65	-	65	0.12	-	0.12
July	2016	59		839	0			0	839	65	-	65	0.12	-	0.12
August	2016	133		972	0			0	972	65	-	65	0.12	-	0.12
September	2016	80		1,053	0			0	1,053	65	-	65	0.12	-	0.12
October	2016	73		1,126	0			0	1,126	65	-	65	0.12	-	0.12
November	2016	85		1,211	0			0	1,211	65	-	65	0.12	-	0.12
December	2016	76		1,287	0			0	1,287	66	-	66	0.12	-	0.12
January	2017	94		1,381	0			0	1,381	65	-	65	0.12	-	0.12
February	2017	35		1,417	0			0	1,417	65	-	65	0.12	-	0.12
March	2017	46		1,462	0			0	1,462	65	-	65	0.12	-	0.12
April	2017	58		1,520	0			0	1,520	65	-	65	0.12	-	0.12
May	2017	64		1,584	0			0	1,584	65	-	65	0.12	-	0.12
June	2017	50		1,634	0			0	1,634	65	-	65	0.12	-	0.12
July	2017	1		1,635	0			0	1,635	65	-	65	0.12	-	0.12
August	2017	0		1,635	0			0	1,635	65	-	65	0.12	-	0.12
September	2017	0		1,635	0			0	1,635	65	-	65	0.12	-	0.12
October	2017	0		1,635	0			0	1,635	65	-	65	0.12	-	0.12
November	2017	0		1,635	0			0	1,635	65	-	65	0.12	-	0.12
December	2017	0		1,635	0			0	1,635	65	-	65	0.12	-	0.12

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May 01 2018

Appendix D.6 Residential Appliance Recycling Program 2015 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Table 2. EM&V Data Incremental by Vintage Year								
Program Participants							Net Incremental Energy (kWh)								
			VA IRP		NC IRP	System IRP			VA IRP		VA NLR		NC IRP	NC NLR	System IRP
2015			3,206		-	3,206	2015		659,253		659,253		-	-	659,253
2016			7,735		-	7,735	2016		2,703,133		2,703,133		-	-	2,703,133
2017			3,131		-	3,131	2017		1,869,797		1,869,797		-	-	1,869,797

Table 3. EM&V Data Annualized by Vintage Year							Table 3. EM&V Data Annualized by Vintage Year								
Program Participants							Net Annualized Energy (kWh)								
			VA IRP		NC IRP	System IRP			VA IRP		VA NLR		NC IRP	NC NLR	System IRP
2015			3,206		-	3,206	2015		2,786,136		2,786,136		-	-	2,786,136
2016			7,735		-	7,735	2016		5,815,125		5,815,125		-	-	5,815,125
2017			3,131		-	3,131	2017		2,322,653		2,322,653		-	-	2,322,653

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							Table 4. EM&V Data Accumulated through Vintage Year (for PPI)								
Program Participants							Net Energy (kWh) for PPI								
	VA				NC PPI	System		VA					NC PPI		System
2015					-		2015						-		
2016					-		2016						-		
2017					-		2017						-		

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)								
Program Participants							Net Energy (kWh)								
			VA IRP		NC IRP	System IRP			VA IRP		VA NLR		NC IRP	NC NLR	System IRP
2015			3,206		-	3,206	2015		659,253		659,253		-	-	659,253
2016			10,941		-	10,941	2016		5,489,270		5,489,270		-	-	5,489,270
2017			14,072		-	14,072	2017		10,471,058		10,471,058		-	-	10,471,058

Appendix D.6 Residential Appliance Recycling Program 2015 - 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2015	417				-	417	206	-	206	0.13	-	0.13
2016	870				-	870	349	-	349	0.11	-	0.11
2017	348				-	348	597	-	597	0.11	-	0.11

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2015	417				-	417	869	-	869	0.13	-	0.13
2016	870				-	870	752	-	752	0.11	-	0.11
2017	348				-	348	742	-	742	0.11	-	0.11

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA				NC PPI	System	VA	NC	System	VA	NC	System
2015					-			-			-	
2016					-			-			-	
2017					-			-			-	

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA IRP				NC IRP	System IRP	VA	NC	System	VA	NC	System
2015	417				-	417	206	-	206	0.13	-	0.13
2016	1,287				-	1,287	502	-	502	0.12	-	0.12
2017	1,635				-	1,635	744	-	744	0.12	-	0.12

Appendix D.7 Residential Retail LED Lighting Program 2017

PROGRAM: Residential LED Program
DSM Phase VI Program
Type: Energy Efficiency
Program Measure Life: 20.0 years

Table 1		Participation Program Participants							Table 1		Energy Savings										
Month	Year	VA			NC			System	Month	Year	Net kWh					NC					System
		VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired) [E] = Σ[A] + Σ[-A retired]	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired) [G] = Σ[C] + Σ[-C retired]	System Cum for IRP			VA Monthly New	VA Monthly Retired	VA Cum. for IRP (New + Retired)	VA Rate Reset Adj.	VA Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	NC Monthly New	NC Monthly Retired	NC Cum. for IRP (New + Retired)	NC Rate Reset Adj.	NC Cum. for Net Lost Revenue (NLR) (New + Retired + Rate Reset Adj.)	System Cum for IRP
December	2016	[A]	[-A retired]		[C]	[-C retired]		0	December	2016											0
January	2017				0	0	0	0	January	2017						0			0		0
February	2017				0	0	0	0	February	2017						0			0		0
March	2017				0	0	0	0	March	2017						0			0		0
April	2017				0	0	0	0	April	2017						0			0		0
May	2017				0	0	0	0	May	2017						0			0		0
June	2017				0	0	0	0	June	2017						0			0		0
July	2017				0	0	0	0	July	2017						0			0		0
August	2017				0	5,018	5,018	5,018	August	2017						13,955		13,955		13,955	13,955
September	2017				0	14,683	19,701	19,701	September	2017						40,158		54,112		54,112	54,112
October	2017				0	14,758	34,459	34,459	October	2017						40,685		94,797		94,797	94,797
November	2017				0	19,836	54,295	54,295	November	2017						57,096		151,893		151,893	151,893
December	2017				0	15,966	70,261	70,261	December	2017						45,712		197,605		197,605	197,605

Appendix D.7 Residential Retail LED Lighting Program 2017

Table 1		Capacity Savings						Energy Savings / Participant			Capacity Savings / Participant		
Month	Year	Net kW						Net kWh/Participant for IRP			Net 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)						
December	2016												
January	2017				0	0	0		-	-		-	-
February	2017				0	0	0		-	-		-	-
March	2017				0	0	0		-	-		-	-
April	2017				0	0	0		-	-		-	-
May	2017				0	0	0		-	-		-	-
June	2017				0	0	0		-	-		-	-
July	2017				0	0	0		-	-		-	-
August	2017				0	16	16		3	3		0.00	0.00
September	2017				0	46	62		3	3		0.00	0.00
October	2017				0	46	108		3	3		0.00	0.00
November	2017				0	65	173		3	3		0.00	0.00
December	2017				0	52	225		3	3		0.00	0.00

Appendix D.7 Residential Retail LED Lighting Program 2017

Table 2. EM&V Data Incremental by Vintage Year							Table 2. EM&V Data Incremental by Vintage Year											
	Program Participants							Net Incremental Energy (kWh)										
			VA IRP			NC IRP		System IRP			VA IRP		VA NLR			NC IRP		NC NLR
2017						70,261	70,261	2017							512,362		512,362	512,362
Table 3. EM&V Data Annualized by Vintage Year							Table 3. EM&V Data Annualized by Vintage Year											
	Program Participants							Net Annualized Energy (kWh)										
			VA IRP			NC IRP		System IRP			VA IRP		VA NLR			NC IRP		NC NLR
2017						70,261	70,261	2017							2,371,259		2,371,259	2,371,259
Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							Table 4. EM&V Data Accumulated through Vintage Year (for PPI)											
	Program Participants							Net Energy (kWh) for PPI										
	VA					NC PPI		System	VA						NC PPI			System
2017						70,261		2017							512,362			
Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)											
	Program Participants							Net Energy (kWh)										
			VA IRP			NC IRP		System IRP			VA IRP		VA NLR			NC IRP		NC NLR
2017						70,261	70,261	2017							512,362		512,362	512,362

Appendix D.7 Residential Retail LED Lighting Program 2017

Table 2. EM&V Data Incremental by Vintage Year							Incremental Energy Savings/Participant			Incremental Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2017	-	-	-	-	225	225	-	-	7	-	-	0.00

Table 3. EM&V Data Annualized by Vintage Year							Annualized Energy Savings/Participant			Annualized Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant for IRP			Net kW/Participant for IRP		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2017	-	-	-	-	225	225	-	34	34	-	0.00	0.00

Table 4. EM&V Data Accumulated through Vintage Year (for PPI)							PPI Energy Savings/Participant			PPI Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2017	-	-	-	-	225	225	-	7	-	-	0.00	-

Table 5. EM&V Data Accumulated through Vintage Year (for IRP and NLR)							IRP Energy Savings/Participant			IRP Capacity Savings/Participant		
	Net Peak Demand (kW)						Net kWh/Participant			Net kW/Participant		
	VA	NC	System	VA	NC	System	VA	NC	System	VA	NC	System
2017	-	-	-	-	225	225	-	7	7	-	0.00	0.00