

Gas Product Detailed Technical Assumptions																			Program Forecast Inputs				Stipulated Forecast Inputs			Program Forecast Outputs			Program Forecast Outputs			
Measure Description	High Efficiency Product Assumptions		Baseline Product Assumptions		Economic Assumptions					Stipulated Output					Economic Assumptions		2017		2018		Valid Throughout Filing Period			2017			2018					
Natural Gas Measure Description	High Efficiency Product Description / Rating	High Efficiency Product Consumption (Dth/yr)	Baseline Product Description / Rating	Baseline Product Consumption (Dth/yr)	Life of Product (years)	Average Rebate Amount	Average Baseline Product Cost	Average Incremental Cost of Efficient Product	Assumed Energy Cost (\$/Dth)	Rebate as a % of Incremental Cost	Incremental Cost Payback Period w/o Rebate	Incremental Cost Payback Period with Rebate	Average Annual Customer Dth Savings	Average rebated cost per Dth Saved	Average rebated Lifetime cost per Dth Saved	Non-Energy O&M Savings	Energy O&M Savings	2017 Participants (-)	2017 Units (-)	2018 Participants (-)	2018 Units (-)	NTG (%)	Installation Rate (%)	Realization Rate (%)	2017 NET Dth (Dth)	2017 Rebate Budget (\$)	2017 Incremental Cost (\$)	2018 NET Dth (Dth)	2018 Rebate Budget (\$)	2018 Incremental Cost (\$)		
26,853																										\$350,258	\$1,351,240	26,863			\$350,258	\$1,354,574
Attic Insulation in Natural Gas Heated and Electrically Cooled Home Combo Customer	Existing Home with Attic Insulation added to achieve R-54	4	Existing home with R0 attic insul average heating efficiency of 78% AFUE and average cooling efficiency of 3.93 COP	18	20	\$229	\$0	\$786	\$5.24	29%	10.32350766	7.30927178	14.53	\$15.79	\$0.79	\$0	\$0	88	225	88	225	116%	100%	100%	3,792	\$51,626	\$176,814	3,792	\$51,626	\$176,814		
Attic Insulation in Natural Gas Heated and non-cooled Home	Existing Home with Attic Insulation added to achieve R-54	4	Existing home with R0 attic insul and average heating efficiency of 78% AFUE	18	20	\$351	\$0	\$1,508	\$5.24	23%	19.8099614	15.19907622	14.53	\$24.16	\$1.21	\$0	\$0	93	237	93	237	116%	100%	100%	3,994	\$83,184	\$357,387	3,994	\$83,184	\$357,387		
Tier 2 Air Sealing & Bypass Sealing for minimum 20% ACH Reduction in Natural Gas Heated and non-cooled Home	Home with Tier 2 Air Sealing: CFM50 rating of 3224	31	Baseline home with CFM50 rating of 3223	44	10	\$243	\$0	\$960	\$5.24	25%	15.10641993	11.26201264	12.13	\$20.04	\$2.00	\$0	\$0	42	107	42	107	116%	100%	100%	1,506	\$26,010	\$102,739	1,506	\$26,010	\$102,739		
Tier 2 Air Sealing & Bypass Sealing for minimum 20% ACH Reduction in Natural Gas Heated and Electric Cooled Home	Home with Tier 2 Air Sealing: CFM50 rating of 3224	31	Baseline home with CFM50 rating of 3223	44	10	\$253	\$0	\$960	\$5.24	45%	8.811265556	4.832382103	12.13	\$20.85	\$2.08	\$0	\$0	38	97	38	97	116%	100%	100%	1,365	\$24,531	\$54,325	1,365	\$24,531	\$54,325		
Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Natural Gas Heated and non-cooled Home	Home with Tier 3 Air Sealing: CFM50 rating of 2078	27	Baseline home with CFM50 rating of 3641	48	10	\$293	\$0	\$955	\$5.24	31%	8.831687166	6.124541004	20.64	\$14.19	\$1.42	\$0	\$0	47	119	47	119	116%	100%	100%	2,849	\$34,837	\$113,650	2,849	\$34,837	\$113,650		
Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Natural Gas Heated and Electric Cooled Home	Home with Tier 3 Air Sealing: CFM50 rating of 2078	27	Baseline home with CFM50 rating of 3641	48	10	\$237	\$0	\$555	\$5.24	43%	5.129729223	2.938838479	20.64	\$11.48	\$1.15	\$0	\$0	45	114	45	114	116%	100%	100%	2,729	\$27,009	\$63,238	2,729	\$27,009	\$63,238		
Wall Insulation from R-0 to R11 in Natural Gas Heated and non-cooled Home	R-11 insulation in wall cavity	14	Empty Wall Cavity	42	20	\$405	0	1936	\$5.24	21%	13.12780269	10.38008247	28.14	\$14.40	\$0.72	\$0	\$0	66	168	66	168	116%	100%	100%	5,484	\$68,074	\$325,238	5,484	\$68,074	\$325,238		
Wall Insulation from R-0 to R11 in Natural Gas Heated and Electrically Cooled Home	R-11 insulation in wall cavity	14	Empty Wall Cavity	42	20	\$210	0	1004	\$5.24	21%	6.807259861	5.382463497	28.14	\$7.47	\$0.37	\$0	\$0	49	124	49	124	116%	100%	100%	4,048	\$26,054	\$124,478	4,048	\$26,054	\$124,478		
High Efficiency Furnace	96.4% AFUE Furnace without ECM	96	80% AFUE Federal Standard Efficiency Furnace	116	18	\$200	740	922	\$5.24	22%	8.920927752	6.986592499	19.73	\$10.14	\$0.56	\$0	\$0	12	30	12	30	116%	100%	100%	687	\$6,000	\$27,671	687	\$6,000	\$27,671		
67% EF Storage Water Heater	45 gallon 67% EF Storage Water Heater	24	45 gallon 60.8% EF Storage Water Heater	27	13	\$100	1101	129	\$5.24	77%	9.814655024	2.211445703	2.51	\$39.84	\$3.06	\$0	\$0	1	2	0	0	116%	100%	100%	6	\$200	\$258	0	\$0	\$0		
Tank-Type Water Heater - High Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	96	Minimum Efficiency Tank-Type Water Heater	96	13	\$100	990	996	\$5.24	27%	27.11727103	19.8984003	2.64	\$37.83	\$2.91	\$0	\$0	0	0	1	1	116%	100%	100%	0	\$0	\$0	3	\$100	\$376		
Tank-Type Water Heater - Medium Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	93	Minimum Efficiency Tank-Type Water Heater	96	13	\$100	990	100	\$5.24	80%	7.566323444	1.536752188	3.17	\$31.59	\$2.43	\$0	\$0	0	0	1	1	116%	100%	100%	0	\$0	\$0	4	\$100	\$125		
90% EF Tankless Water Heater	45 gallon 90% EF Tankless Water Heater	18	45 gallon 60.8% EF Storage Water Heater	27	20	\$200	1101	438	\$5.24	46%	9.564789314	5.200145617	8.74	\$22.87	\$1.14	\$0	\$0	3	8	0	0	116%	100%	100%	81	\$1,600	\$3,506	0	\$0	\$0		
Tankless Water Heater - High Draw Pattern	High Efficiency Tankless Water Heater	13	Minimum Efficiency Tank-Type Water Heater	96	20	\$200	1071	986	\$5.24	23%	19.73712862	15.17790001	8.37	\$23.89	\$1.19	\$0	\$0	0	0	2	4	116%	100%	100%	0	\$0	\$0	39	\$800	\$3,463		
Tankless Water Heater - Medium Draw Pattern	High Efficiency Tankless Water Heater	14	Minimum Efficiency Tank-Type Water Heater	96	20	\$200	995	100	\$5.24	26%	13.60414746	10.13144265	10.99	\$18.20	\$0.91	\$0	\$0	0	0	1	4	116%	100%	100%	0	\$0	\$0	51	\$800	\$3,134		
Energy Star Clothes Washer - Combo Customers w/ Gas DHW	Energy Star Clothes Washer	0.3	Standard Clothes Washer	0.5	11	\$17	0	17	\$5.24	100%	3.502603948	0	0.12	\$151.64	\$13.79	\$4	\$0	7	19	7	19	116%	100%	100%	3	\$331	\$331	3	\$331	\$331		
Energy Star Clothes Washer - Gas Only Customers w/ Gas DHW	Energy Star Clothes Washer	0.3	Standard Clothes Washer	0.5	11	\$30	0	17	\$5.24	172%	3.502603948	-2.521210013	0.12	\$260.79	\$23.71	\$4	\$0	0	0	0	0	116%	100%	100%	0	\$0	\$0	0	\$0	\$0		
Install and program a new Setback Thermostat	Energy Star Programmable thermostat (assume 2.4 F set back during heating per 2009 RECS Data Analysis)	62	standard thermostat - manually adjusted	66	10	\$13	0	25	\$5.24	50%	1.142105633	0.571052816	4.19	\$2.99	\$0.30	\$0	\$0	25	64	25	64	116%	100%	100%	311	\$803	\$1,605	311	\$803	\$1,605		