

Measure Description		Gas Product Detailed Technical Assumptions														Program Forecast Inputs				Stipulated Forecast Inputs			Program Forecast Outputs			Program Forecast Outputs					
		High Efficiency Product Assumptions		Baseline Product Assumptions		Economic Assumptions				Stipulated Output				Economic Assumptions		2019		2020		Valid Throughout Filing Period			2019			2020					
		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	2019 Participants (-)	2019 Units (-)	2020 Participants (-)	2020 Units (-)	NTG (%)	Installation Rate (%)	Realization Rate (%)	2019 NET Dth (Dth)	2019 Rebate Budget (\$)	2019 Incremental Cost (\$)	2020 NET Dth (Dth)	2020 Rebate Budget (\$)	2020 Incremental Cost (\$)
TOTAL																		950		950				19,263	\$232,525	\$846,868	19,263	\$232,525	\$846,868		
Attic Insulation	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 R9 attic insul. average heating efficiency of 78% AFUE and average cooling efficiency of 3.93 COP	18	20	\$211	\$0	\$723	\$6.09	29%	8.176356902	5.789041549	14.53	\$14.54	\$0.73	\$0	\$0	89	215	89	215	116%	100%	100%	3,623	\$45,409	\$155,522	3,623	\$45,409	\$155,522
Attic Insulation	Attic Insulation in Natural Gas Heated and non-cooled Home	Existing Home with Attic Insulation added to achieve R-54	4	Existing Home with R9 attic insul and average heating efficiency of 78% AFUE	19	20	\$351	\$0	\$1,598	\$6.09	23%	17.04502426	13.07799448	14.53	\$24.16	\$1.21	\$0	\$0	48	116	48	116	116%	100%	100%	1,955	\$40,714	\$174,923	1,955	\$40,714	\$174,923
Air Sealing & Weather-stripping T2	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 2324	31	Baseline home with CFM50 rating of 3223	44	10	\$243	\$0	\$960	\$6.09	25%	12.99797051	9.707347497	12.13	\$20.04	\$2.00	\$0	\$0	20	49	20	49	116%	100%	100%	689	\$11,911	\$47,048	689	\$11,911	\$47,048
Air Sealing & Weather-stripping T2	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 2324	31	Baseline home with CFM50 rating of 3223	44	10	\$237	\$0	\$926	\$6.09	45%	7.100568477	3.894180672	12.13	\$19.53	\$1.95	\$0	\$0	54	130	54	130	116%	100%	100%	1,829	\$30,792	\$68,188	1,829	\$30,792	\$68,188
Air Sealing & Weather-stripping T3	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 2079	27	Baseline home with CFM50 rating of 3641	48	10	\$293	\$0	\$955	\$6.09	31%	7.59902147	5.26972001	20.64	\$14.19	\$1.42	\$0	\$0	33	80	33	80	116%	100%	100%	1,915	\$23,420	\$76,403	1,915	\$23,420	\$76,403
Air Sealing & Weather-stripping T3	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 2079	27	Baseline home with CFM50 rating of 3641	48	10	\$222	\$0	\$919	\$6.09	43%	4.132259964	2.367384538	20.64	\$10.75	\$1.07	\$0	\$0	54	130	54	130	116%	100%	100%	3,112	\$28,835	\$87,514	3,112	\$28,835	\$87,514
Wall Insulation	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	\$379	0	1936	\$6.09	20%	11.29551496	9.084911277	28.14	\$13.46	\$0.67	\$0	\$0	29	71	29	71	116%	100%	100%	2,318	\$26,900	\$137,452	2,318	\$26,900	\$137,452
Wall Insulation	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	\$181	0	925	\$6.09	20%	5.398718303	4.342155003	28.14	\$6.43	\$0.32	\$0	\$0	41	100	41	100	116%	100%	100%	3,265	\$18,108	\$92,529	3,265	\$18,108	\$92,529
High Efficiency Furnace	95% Efficient Furnace	96.4% AFUE Furnace without ECM	99	80% AFUE Federal Standard Efficiency Furnace	119	18	\$300	3688	1460	\$6.09	21%	11.86918693	9.430399083	20.20	\$14.85	\$0.83	\$0	\$0	6	14	6	14	116%	100%	100%	328	\$4,200	\$20,441	328	\$4,200	\$20,441
ES Clothes Washer	Energy Star Clothes Washer - Combo Customers w/ Gas DHW	Energy Star Clothes Washer	0.3	Standard Clothes Washer	0.5	11	\$19	0	19	\$6.09	100%	3.191448249	0	0.12	\$165.38	\$15.03	\$5	\$0	0	1	0	1	116%	100%	100%	0	\$19	\$19	0	\$19	\$19
ES Clothes Washer	Energy Star Clothes Washer - Gas Only Customers w/ Gas DHW	Energy Star Clothes Washer	0.3	Standard Clothes Washer	0.5	11	\$30	0	19	\$6.09	158%	3.191448249	-1.841241693	0.12	\$260.79	\$23.71	\$5	\$0	0	1	0	1	116%	100%	100%	0	\$30	\$19	0	\$30	\$19
T-Stat Install & Programming	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	\$17	0	24	\$6.09	70%	0.936251506	0.280875452	4.19	\$3.99	\$0.40	\$0	\$0	7	18	7	18	116%	100%	100%	87	\$301	\$430	87	\$301	\$430
Gas-Fired Storage Water Heater	Tank-Type Water Heater - High Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	26	Minimum Efficiency Tank-Type Water Heater	28	13	\$100	960	374	\$6.09	27%	23.22659611	17.01638162	2.64	\$37.82	\$2.91	\$0	\$0	1	2	1	2	100%	100%	100%	5	\$200	\$748	5	\$200	\$748
Gas-Fired Storage Water Heater	Tank-Type Water Heater - Medium Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	22	Minimum Efficiency Tank-Type Water Heater	26	13	\$100	892	141	\$6.09	71%	7.309818576	2.110859263	3.16	\$31.66	\$2.44	\$0	\$0	0	1	0	1	100%	100%	100%	3	\$100	\$141	3	\$100	\$141
Tankless Water Heater	Tankless Water Heater - High Draw Pattern	High Efficiency Tankless Water Heater	17	Minimum Efficiency Tank-Type Water Heater	26	20	\$200	1071	861	\$6.09	23%	16.58488017	12.73075467	8.52	\$23.47	\$1.17	\$0	\$0	2	4	2	4	100%	100%	100%	34	\$800	\$3,443	34	\$800	\$3,443
Tankless Water Heater	Tankless Water Heater - Medium Draw Pattern	High Efficiency Tankless Water Heater	18	Minimum Efficiency Tank-Type Water Heater	29	20	\$200	975	783	\$6.09	26%	11.70537483	8.717366089	10.99	\$18.20	\$0.91	\$0	\$0	0	1	0	1	100%	100%	100%	11	\$200	\$783	11	\$200	\$783
Energy Star Smart Thermostat	Install Energy Star certified smart thermostat - COMBO	Average Single Family House with Energy Star Smart Thermostat	95	Average Single Family House with Standard Thermostat	60	10	\$18	0	78	\$6.09	23%	2.657979267	2.039844553	4.82	\$3.76	\$0.38	\$0	\$0	6	15	6	15	100%	100%	100%	72	\$272	\$1,169	72	\$272	\$1,169
Installation of Non-Qualifying Efficiency AC equipment with Qi - Existing Home	Standard Efficiency AC with Qi and associated furnace	Residential Air Conditioning - Non-Qualifying Efficiency - 14 SEER - 14 SEER - 14 SEER - 14 SEER	98	Residential Air Conditioning - Non-Qualifying Efficiency - 14 SEER	76	18	\$143	0	90	\$6.09	238%	1.268494477	-1.746274622	7.77	\$18.36	\$1.02	\$0	\$0	0	0	0	0	100%	100%	100%	0	\$0	\$0	0	\$0	\$0
Installation of Qualifying Efficiency AC equipment with Qi - Existing Home	Quality Install of High Efficiency AC with associated furnace	Residential Air Conditioning - Qualifying Efficiency - 16 SEER - 16 SEER - 16 SEER - 16 SEER	97	Residential Air Conditioning - Non-Qualifying Efficiency - 14 SEER	76	18	\$157	0	90	\$6.09	329%	1.030435072	-2.362311525	7.58	\$20.66	\$1.15	\$0	\$0	1	2	1	2	100%	100%	100%	15	\$313	\$95	15	\$313	\$95