

Measure Description		Gas Product Detailed Technical Assumptions																	Program Forecast Inputs		Stipulated Forecast Inputs			Program Forecast Outputs		
		High Efficiency Product Assumptions		Baseline Product Assumptions		Economic Assumptions					Stipulated Output					Economic Assumptions		2020		Valid Throughout Filing Period			2020			
Natural Gas Measure Group	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	2020 Participants (-)	2020 Units (-)	NTG (%)	Installation Rate (%)	Realization Rate (%)	2020 NET Dth	2020 Rebate Budget (\$)	2020 Incremental Cost (\$)
TOTAL																										
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 R8 attic insul. average heating efficiency of 78% AFUE and average cooling efficiency of 3.93 COP	18	20	\$197	\$0	\$723	\$6.09	27%	8.176356902	5.949359476	14.53	\$13.56	\$0.68	\$0	\$0	89	215	116%	100%	100%	3,623	\$42,359	\$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 R8 attic insul and average heating efficiency of 78% AFUE	18	20	\$321	\$0	\$1,508	\$6.09	21%	17.04502426	13.41335716	14.53	\$22.12	\$1.11	\$0	\$0	48	116	116%	100%	100%	1,955	\$37,270	\$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	\$107	\$0	\$960	\$6.09	11%	12.99797051	11.5555338	12.13	\$8.78	\$0.88	\$0	\$0	20	49	116%	100%	100%	689	\$5,221	\$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	\$127	\$0	\$525	\$6.09	24%	7.100568477	5.37504746	12.13	\$10.51	\$1.05	\$0	\$0	54	130	116%	100%	100%	1,829	\$16,571	\$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 2078	27	Baseline home with CFM50 rating of 3641	48	10	\$148	\$0	\$955	\$6.09	15%	7.99902147	6.421300432	20.64	\$7.17	\$0.72	\$0	\$0	33	80	116%	100%	100%	1,915	\$11,841	\$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 2078	27	Baseline home with CFM50 rating of 3641	48	10	\$156	\$0	\$519	\$6.09	30%	4.132258964	2.892053698	20.64	\$7.55	\$0.76	\$0	\$0	54	130	116%	100%	100%	3,112	\$20,263	\$67,514
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	\$296	0	1936	\$6.09	15%	11.29551496	9.570663036	28.14	\$10.50	\$0.53	\$0	\$0	29	71	116%	100%	100%	2,318	\$20,989	\$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	\$141	0	925	\$6.09	15%	5.398718303	4.574321214	28.14	\$5.02	\$0.25	\$0	\$0	41	100	116%	100%	100%	3,265	\$14,129	\$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	116%	100%	100%	328	\$4,200	\$20,441
ES Clothes Washer	Energy Star Front-loading Clothes Washer - Gas Only Customers w/ Gas DHW	Energy Star Front-loading Clothes Washer w/ Gas DHW	5.3	Conventional Front-loading Clothes Washer	5.9	10	\$30	0	80	\$6.09	60%	5.568055544	2.223222218	0.12	\$260.79	\$23.71	\$8	\$0	0	1	116%	100%	100%	0	\$30	\$50
ES Clothes Washer	Energy Star Front-Loading Clothes Washer - Combo Customers w/ Gas DHW	Energy Star Front-Loading Clothes Washer w/ Gas DHW	5.3	Conventional Front-Loading Clothes Washer	5.9	10	\$2	0	4	\$6.09	60%	2.880488581	1.152195432	0.12	\$20.16	\$1.83	\$1	\$0	0	1	116%	100%	100%	0	\$2	\$4
ES Clothes Washer	Energy Star Top-loading Clothes Washer - Gas Only Customers w/ Gas DHW	Energy Star Top-loading Clothes Washer w/ Gas DHW	5.4	Conventional Top-loading Clothes Washer	5.9	10	\$30	0	100	\$6.09	16%	4.659011467	3.923378078	0.41	\$72.54	\$6.59	\$38	\$0	0	1	116%	100%	100%	0	\$30	\$190
ES Clothes Washer	Energy Star Top-Loading Clothes Washer - Combo Customers w/ Gas DHW	Energy Star Top-Loading Clothes Washer w/ Gas DHW	5.4	Conventional Top-loading Clothes Washer	5.9	10	\$3	0	20	\$6.09	16%	3.104521234	2.61433367	0.41	\$7.96	\$0.72	\$4	\$0	0	1	116%	100%	100%	0	\$3	\$21
Gas-Fired Storage Water Heater	Tank-Type Water Heater - High Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	36	Minimum Efficiency Tank-Type Water Heater	39	10	\$400	960	310	\$6.09	27%	23.22669644	17.01638162	2.64	\$37.82	\$2.91	\$0	\$0	0	9	100%	100%	100%	0	\$0	\$0
Gas-Fired Storage Water Heater	Tank-Type Water Heater - Medium Draw Pattern (30-50 Gallon)	High Efficiency Tank-Type Water Heater	36	Minimum Efficiency Tank-Type Water Heater	39	10	\$495	960	340	\$6.09	71%	7.309818676	2.110860263	3.16	\$31.66	\$2.44	\$0	\$0	0	9	100%	100%	100%	0	\$0	\$0
Tankless Water Heater	Tankless Water Heater - High Draw Pattern - 2020 rebate change	High Efficiency Tankless Water Heater	17	Minimum Efficiency Tankless Water Heater	29	20	\$100	1071	861	\$6.09	12%	16.58488017	14.05781742	8.52	\$11.74	\$0.59	\$0	\$0	2	4	100%	100%	100%	34	\$400	\$3,443
Tankless Water Heater	Tankless Water Heater - Medium Draw Pattern - 2020 rebate change	High Efficiency Tankless Water Heater	18	Minimum Efficiency Tankless Water Heater	29	20	\$100	975	763	\$6.09	13%	11.70537483	10.21137046	10.99	\$9.10	\$0.45	\$0	\$0	0	1	100%	100%	100%	11	\$100	\$783
Energy Star Smart Thermostat	Install Energy Star certified smart thermostat - COMBO	Average Single Family House with EnergyStar Smart Thermostat	55	Average Single Family House with Standard Thermostat	60	10	\$18	0	78	\$6.09	23%	2.65797267	2.039844553	4.82	\$3.76	\$0.38	\$0	\$0	14	33	100%	100%	100%	159	\$598	\$2,573
Installation of Non-Qualifying Efficiency AC equipment with QI - Existing Home	Standard Efficiency AC with QI and associated furnace	Residential Air Conditioner - Non-Qualifying Efficiency + QI w/ associated Furnace (Average 77.3 MBH nameplate & 0.95 EER)	68	Residential Air Conditioner - Non-Qualifying Efficiency w/o QI	76	18	\$107	0	60	\$6.09	178%	1.268494477	-0.992582348	7.77	\$13.77	\$0.76	\$0	\$0	0	0	100%	100%	100%	0	\$0	\$0
Installation of Qualifying Efficiency AC equipment with QI - Existing Home	Quality Install of High Efficiency AC with associated furnace	Residential Air Conditioner - Qualifying Equip QI Only w/associated Furnace (Average 75.4 MBH nameplate & 0.95 EER)	67	Residential Air Conditioner - Non-Qualifying Efficiency w/o QI	74	18	\$117	0	48	\$6.09	247%	1.030435072	-1.514124876	7.58	\$15.50	\$0.86	\$0	\$0	1	2	100%	100%	100%	15	\$235	\$95
ES Clothes Washer	Energy Star Clothes Washer - Combo Customers w/ Gas DHW	Energy Star Clothes Washer	5.3	Standard Clothes Washer	5.9	10	\$4.09	0	10	\$6.09	100%	3.191448240	0	0.12	\$186.38	\$18.02	\$0	\$0	0	1	116%	100%	100%	0	\$19	\$19
ES Clothes Washer	Energy Star Clothes Washer - Gas Only Customers w/ Gas DHW	Energy Star Clothes Washer	5.3	Standard Clothes Washer	5.9	10	\$30	0	10	\$6.09	168%	3.191448240	-1.841241603	0.12	\$280.79	\$23.71	\$8	\$0	0	1	116%	100%	100%	0	\$30	\$19
T-Stat Install & Programming	Install and program a new Setback Thermostat	Energy Star Programmable Thermostat (Average 1.8 EER and 100% Energy Savings w/ 2020 Rebate)	66	Standard Thermostat - manually adjusted	66	10	\$12	0	20	\$6.09	70%	0.038251606	0.290876462	4.19	\$3.09	\$0.40	\$0	\$0	0	0	116%	100%	100%	0	\$0	\$0