

Electric Product Detailed Technical Assumptions																																	
Measure Description	High Efficiency Product Assumptions			Baseline Product Assumptions			Economic Assumptions					Stipulated Output							Economic Assumptions		Technical Assumption	Program Forecast Inputs				Stipulated Forecast Inputs			2017				
	Electric Measure Description	Efficient Product Description / Rating	Efficient Product Consumption (watts)	Efficient Hours of Operation (hrs/yr)	Baseline Product Description / Rating	Baseline Product Consumption (watts)	Baseline Hours of Operation (hrs/yr)	Measure Lifetime (years)	Rebate Amount (\$)	Average Baseline Product Cost (\$)	Incremental Cost of Efficient Product (\$)	Assumed Energy Cost (\$/kWh)	Rebate as a % of Incremental Cost (%)	Increment'l Cost Payback Period w/o Rebate (yrs)	Increment'l Cost Payback Period w/ Rebate (yrs)	Annual Customer kWh Savings (kWh/yr)	Rebated Cost / Cust kWh Saved (\$/kWh)	Rebated Lifetime cost /Cust kWh Saved (\$/kWh)	Customer kW Savings (kW)	Generator Peak kW Savings (kW)	Non-Energy O&M Savings (\$)	Energy O&M Savings (\$)	Coincidence Factor (%)	2017 Participants (-)	2017 Units (-)	2018 Participants (-)	2018 Units (-)	NTG (%)	Installation Rate (%)	Realization Rate (%)	2017 NET Gen kW (kW)	2017 NET Gen kWh (kWh)	2017 Rebate Budget (\$)
																								571	1,041	571	1,083				404	423,507	\$175,144
Electric Heat Homes Without Cooling	Home with additional insulation	2,018	1,159	Home with R20 or less existing insulation	4,296	1,159	20	\$355.79	\$0	\$1,232	0.12944	29%	3.61	2.56	2,640	\$0.135	\$0.007	2.28	0.00	\$0.00	\$0.00	0%	28	46	28	46	85%	100%	100%	0	111,835	\$16,366	
Electric Heat Homes With Cooling	Home with additional insulation	1,269	1,488	Home with R20 or less existing insulation	3,549	1,488	20	\$421.41	\$0	\$1,468	0.12944	29%	3.34	2.38	3,393	\$0.124	\$0.006	2.28	0.56	\$0.00	\$0.00	23%	5	8	5	8	85%	100%	100%	4	24,998	\$3,371	
Gas Heat Homes With Cooling, Combo Customer	Home with additional insulation	480	329	Home with R20 or less existing insulation	1,044	329	20	\$184.67	\$0	\$793	0.12944	23%	33.05	25.36	185	\$0.996	\$0.050	0.56	0.61	\$0.00	\$0.00	100%	243	447	243	467	85%	100%	100%	232	76,246	\$82,475	
Electric Heat Homes Without Cooling	R-11 insulation	2,927	1,159	Baseline assumes R-0 in wall cavities as existing level	4,296	1,159	20	\$240.90	\$0	\$803	0.12944	30%	3.91	2.74	1,587	\$0.152	\$0.008	1.37	0.00	\$0.00	\$0.00	0%	1	2	1	2	85%	100%	100%	0	2,923	\$482	
Electric Heat Homes With Cooling	R-11 insulation	2,524	1,488	Baseline assumes R-0 in wall cavities as existing level	3,549	1,488	20	\$385.00	\$0	\$1,337	0.12944	29%	6.77	4.82	1,525	\$0.252	\$0.013	1.03	0.35	\$0.00	\$0.00	32%	1	2	1	2	85%	100%	100%	1	2,809	\$770	
Gas Heat Homes With Cooling, Combo Customer	R-11 insulation	369	329	Baseline assumes R-0 in wall cavities as existing level	1,044	329	20	\$167.40	\$0	\$677	0.12944	25%	23.56	17.74	222	\$0.754	\$0.038	0.68	0.73	\$0.00	\$0.00	100%	25	46	25	48	85%	100%	100%	29	9,447	\$7,734	
Electric Heat Homes Without Cooling	Home with Tier 2 Air Sealing	6,071	1,159	Existing Home Without Air Sealing	8,000	1,159	10	\$275.31	\$0	\$686	0.12944	40%	2.37	1.42	2,235	\$0.123	\$0.012	1.93	0.00	\$0.00	\$0.00	0%	14	24	14	24	85%	100%	100%	0	49,396	\$6,608	
Electric Heat Homes With Cooling	Home with Tier 2 Air Sealing	6,806	1,488	Existing Home Without Air Sealing	8,000	1,488	10	\$320.23	\$0	\$1,200	0.12944	27%	5.23	3.83	1,774	\$0.180	\$0.018	1.19	0.24	\$0.00	\$0.00	18%	2	4	2	4	85%	100%	100%	1	6,535	\$1,281	
Gas Heat Homes With Cooling, Combo Customer	Home with Tier 2 Air Sealing	3,773	329	Existing Home Without Air Sealing	4,000	329	10	\$102.48	\$0	\$264	0.12944	39%	27.29	16.69	75	\$1.373	\$0.137	0.23	0.25	\$0.00	\$0.00	100%	135	249	135	260	85%	100%	100%	52	17,088	\$25,478	
Electric Heat Homes Without Cooling	Home with Tier 3 Air Sealing	4,568	1,159	Existing Home Without Air Sealing	8,000	1,159	10	\$314.37	\$0	\$1,047	0.12944	30%	2.03	1.42	3,977	\$0.079	\$0.008	3.43	0.00	\$0.00	\$0.00	0%	11	19	11	19	85%	100%	100%	0	69,584	\$5,973	
Electric Heat Homes With Cooling	Home with Tier 3 Air Sealing	1,889	1,488	Existing Home Without Air Sealing	8,000	1,488	10	\$212.00	\$0	\$353	0.12944	60%	0.30	0.12	9,093	\$0.023	\$0.002	6.11	0.90	\$0.00	\$0.00	14%	2	3	2	3	85%	100%	100%	2	25,119	\$636	
Gas Heat Homes With Cooling, Combo Customer	Home with Tier 3 Air Sealing	3,525	329	Existing Home Without Air Sealing	4,000	329	10	\$125.24	\$0	\$307	0.12944	41%	15.17	8.98	156	\$0.802	\$0.080	0.47	0.51	\$0.00	\$0.00	100%	104	191	104	200	85%	100%	100%	84	27,527	\$23,971	

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	Increment'l Cost Payback Period w/o Rebate	Increment'l 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 (\$)
																		953	1,438	953	1,438				19,757	\$306,441	\$1,128,778	19,757	\$306,441	\$1,128,778
Gas Heat Homes Without Cooling	Home with additional insulation	12.4	Home with R20 or less existing insulation	30.0	20	\$364.16	\$0	\$1,440.39	\$5.24	25%	15.6	11.6	17.64	\$20.64	\$1.03	\$0.00	\$0.00	168	253	168	253	85%	100%	100%	3,794	\$92,132	\$364,419	3,794	\$92,132	\$364,419
Gas Heat Homes With Cooling, Combo Customer	Home with additional insulation	12.8	Home with R20 or less existing insulation	30.0	20	\$196.15	\$0	\$842.58	\$5.24	23%	9.4	7.2	17.18	\$11.42	\$0.57	\$0.00	\$0.00	269	406	269	406	85%	100%	100%	5,928	\$79,639	\$342,089	5,928	\$79,639	\$342,089
Gas Heat Homes With Cooling, Gas Only Customer	Home with additional insulation	6.2	Home with R20 or less existing insulation	30.0	20	\$202.61	\$0	\$861.75	\$5.24	24%	6.9	5.3	23.80	\$8.51	\$0.43	\$0.00	\$0.00	30	46	30	46	85%	100%	100%	931	\$9,320	\$39,641	931	\$9,320	\$39,641
Gas Heat Homes Without Cooling	R-11 insulation	13.0	Baseline assumes R-0 in wall cavities as existing level	30.0	20	\$270.07	\$0	\$1,310.35	\$5.24	21%	14.7	11.6	17.05	\$15.84	\$0.79	\$0.00	\$0.00	18	27	18	27	85%	100%	100%	391	\$7,292	\$35,379	391	\$7,292	\$35,379
Gas Heat Homes With Cooling, Combo Customer	R-11 insulation	9.4	Baseline assumes R-0 in wall cavities as existing level	30.0	20	\$177.79	\$0	\$719.40	\$5.24	25%	6.7	5.0	20.57	\$8.64	\$0.43	\$0.00	\$0.00	28	42	28	42	85%	100%	100%	734	\$7,467	\$30,215	734	\$7,467	\$30,215
Gas Heat Homes With Cooling, Gas Only Customer	R-11 insulation	9.9	Baseline assumes R-0 in wall cavities as existing level	30.0	20	\$166.05	\$0	\$837.89	\$5.24	20%	7.9	6.4	20.13	\$8.25	\$0.41	\$0.00	\$0.00	1	2	1	2	85%	100%	100%	34	\$332	\$1,676	34	\$332	\$1,676
Gas Heat Homes Without Cooling	Home with Tier 2 Air Sealing	20.4	Existing Home Without Air Sealing	30.0	10	\$160.26	\$0	\$624.80	\$5.24	26%	12.4	9.2	9.62	\$16.65	\$1.67	\$0.00	\$0.00	83	125	83	125	85%	100%	100%	1,023	\$20,033	\$78,101	1,023	\$20,033	\$78,101
Gas Heat Homes With Cooling, Combo Customer	Home with Tier 2 Air Sealing	20.1	Existing Home Without Air Sealing	30.0	10	\$142.42	\$0	\$366.48	\$5.24	39%	7.1	4.3	9.86	\$14.44	\$1.44	\$0.00	\$0.00	150	226	150	226	85%	100%	100%	1,895	\$32,186	\$82,824	1,895	\$32,186	\$82,824
Gas Heat Homes With Cooling, Gas Only Customer	Home with Tier 2 Air Sealing	20.4	Existing Home Without Air Sealing	30.0	10	\$157.46	\$0	\$496.46	\$5.24	34%	9.1	5.9	9.59	\$16.41	\$1.64	\$0.00	\$0.00	16	24	16	24	85%	100%	100%	196	\$3,779	\$10,955	196	\$3,779	\$10,955
Gas Heat Homes Without Cooling	Home with Tier 3 Air Sealing	10.8	Existing Home Without Air Sealing	30.0	10	\$216.45	\$0	\$647.95	\$5.24	33%	6.5	4.3	19.17	\$11.29	\$1.13	\$0.00	\$0.00	62	94	62	94	85%	100%	100%	1,531	\$20,347	\$60,908	1,531	\$20,347	\$60,908
Gas Heat Homes With Cooling, Combo Customer	Home with Tier 3 Air Sealing	9.5	Existing Home Without Air Sealing	30.0	10	\$173.09	\$0	\$423.90	\$5.24	41%	3.9	2.3	20.53	\$8.43	\$0.84	\$0.00	\$0.00	115	174	115	174	85%	100%	100%	3,036	\$30,117	\$73,758	3,036	\$30,117	\$73,758
Gas Heat Homes With Cooling, Gas Only Customer	Home with Tier 3 Air Sealing	13.7	Existing Home Without Air Sealing	30.0	10	\$199.92	\$0	\$463.88	\$5.24	43%	5.4	3.1	16.35	\$12.23	\$1.22	\$0.00	\$0.00	13	19	13	19	85%	100%	100%	264	\$3,798	\$8,814	264	\$3,798	\$8,814