Measure Description	High Efficiency Prod	oduct Assumo	tions	Bar	seline Product As	Elec	tric Product Deta	illed Technical Assum	ptions romic Assumptions				Stipular	ted Output			Economic Assumptions	Technical	201	Program For	recast inputs	18	Stipulated Foreca	st Inputs		2017	Program Fo	recast Outputs	2018	
		Efficient	Product Efficient Ho	ours Baseline Pro	duct Baseline	Product Baseline	Measure	Rehate Amount	Average Incremental Co	ast Assumed Finance	Rebate as a %	Incremt'i Cost Incremt'i Co	ost Annual Customer Will	Rebated Cost/	Rebated Gustome	Generator	Non-Energy Fnerny O&M	Assumption	2017 Participants	2017 Units	2018 Participants	2018 Units	NTG Installatio	Realization	2017 NET Gen 2017 NET	Cen kWh 2017 Rehote Ru	dnet 2017 Incremental	2018 NET Gen 2018 NET	Sen kWh 2018 Rehate I	Rudnet 2018 Incremental
Electric Measure Description	Efficient Product Description / Rating	g Consur (war	Product Efficient Ho mption of Operat tts) (hrs/yr)	Baseline Pro Description / f	Rating Dassers Consu	Product Baseline Hours of Operation (hrs/yr)	Measure Lifetime (years)	(\$) Pr	Average Baseline oduct Cost (\$) Incremental Co of Efficient Product (\$)	Assumed Energy Cost (\$kWh)	of Incremental Cost (%)	Payback Payback Period wio Period w Rebate (yrs) Rebate (yr	Savings s) (kWh/yr)	Cust kWh Saved (\$/kWh)	Rebated Lifetime cost /Cust KWh aved (\$/kWh)	kW Generator Peak kW (W) Savings (kW)	Non-Energy O&M Savings (\$) Energy O&M Savings (\$)	Coincidence Factor (%)	(-)	2017 Units (-)	(-)	2018 Units (-)	NTG (%) Installatio	Realization Rate (%)	2017 NET Gen kW (kW) (ki	h) (\$)	dget 2017 Incremental Costs (\$)	kW 2018 NET ((kW) (kW	h) (5)	Budget Costs (\$)
Attic Insulation in Electrically Heated and non-cooled Home	Existing Home with Attic Insulation added to	1 to 46	6 1.159	Existing home s attic insul and a	with R9 verage 2:	343 1.159	20.00	\$373	\$0 \$1,508	0.10289	25%	6.74 5.0717193	19 2,175	\$0.171	\$0.009 1.88	0.00	\$0.00 \$0.00	0%	1	17	1	17	116% 100%	100%	0 46	84 \$8,341	\$25,635	0 46,4	59 3972,942 64 \$8,341	1 \$25,635
	acheve H-54			COP Existing home s	y 01 1.51 with R9																									
Attic Insulation in Electrically Heated and Cooled Home	Existing Home with Attic Insulation added to achieve R-54	1 to 48	6 1,242	attic insul and a heating efficiency COP and cor	verage y of 1.51 2; oling	1,242	20.00	\$584	\$0 \$1,508	0.10289	39%	6.29	85 2,330	\$0.251	\$0.013 1.88	0.51	\$0.00 \$0.00	25%	1	8	1	8	116% 100%	100%	5 23,	34,672	\$12,064	5 23,4	26 \$4,672	\$12,064
Attic Insulation in Natural Gas Heated and Electrically Cooled Home	Existing Home with Aftic Insulation added to	i to	7 329	Existing home s attic insul and a	is COP with R9 verage	80 320	20.00	\$211	\$0 \$722	0.10249	29%	45.22 33	.02 155	\$1.359	\$0.068 0.47	0.51	\$0.00 \$0.00	100%	19	248	10	259	116% 100%	100%	147 48	852,184	\$178,725	154 50,5	09 \$54,606	8 \$187,029
Tier 2 Air Sealing & Bypass Sealing for minimum 20% ACH Reduction in Electric Heated and	achieve R-54 Home with Tier 2 Air Sealing: CPM50 reading	ding 4.0	96 1159	cooling efficiency COP Baseline home	y of 3.93	194 1150	10.00	\$392	50 5000	0.10289	41%		.81 3,058	\$0.128	\$0.013 2.64	0.00	\$0.00 \$0.00	0%	1	10		10	116% 100%	100%	0 38		\$9,602	0 38,4		
non-cooled Norma Tier 2 Air Sealing & Bypass Sealing for minimum 20% ACH Reduction in Electrically Heated and Cooled Home Tier 2 Air Sealing & Bypass Sealing for minimum 20% ACH Reduction in Natural Gas Heated	of 2324 Home with Tier 2 Air Sealing: CFM50 readin of 2324	sing 5,5	34 1,194	CFM50 rating o Baseline home CFM50 rating o	(3223 ii with (3223	173 1,194	10.00	\$434	\$0 \$960	0.10289	45%		.62 3,150	\$0.138	\$0.014 2.64	0.30	\$0.00 \$0.00	11%	0	2	0	2	116% 100%	100%		16 \$867	\$1,920	1 7,9	16 \$867	\$1,920
and Electric Cooled Home Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Electric Heated and	Home with Tier 2 Air Sealing: CFM50 readin of 2324 Home with Tier 3 Air Sealing: CFM50 readin	fing 72	2 329	CFM50 rating o Baseline home	s with (3223 s with 10	329	10.00	\$38 \$02	\$0 \$400	0.10289	10%		33 92 56 5,392	\$0.416 \$0.017	\$0.042 0.28 \$0.002 4.65		\$0.00 \$0.00	100%	8	107	8	112	116% 100%		37 12 0 54		\$42,693 \$7,640	39 12,9 0 54,2	18 \$4,274 08 \$733	
non-cooled Norma Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Electrically Heated And Cooled Home Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Natural Gas Heated	of 2078 Home with Tier 3 Air Sealing: CFM50 readin of 2078	ding 6,11	88 1,193	CFM50 rating o Baseline home CFM50 rating o	(3841 e with (3841	841 1,193	10.00	\$550	\$0 \$955	0.10289	58%		71 5,550	\$0.099	\$0.010 4.65		\$0.00 \$0.00	10%	0	3	0	3	116% 100%		2 20		\$2,865	2 20,9		
Tier 3 Air Sealing & Bypass Sealing for minimum 30% ACH Reduction in Natural Gas Heated and Electric Cooled Home Wall Insulation from R-0 to R11 in Electric Heated and non-cooked Home Wall Insulation from R-0 to R11 in Electrically Heated and Cooled Home Wall Insulation from R-0 to R11 in Natural Gas Heated and Electrically Cooled Home	Home with Tier 3 Air Sealing: CFM50 readin of 2078 R-11 insulation in wall cavity	ding 63 2,51	8 329 07 1,159	Baseline home CFM50 rating o Empty Wall C	e with (3641 1/ (avity 6/	117 329 420 1,159	10.00	\$144 \$482	\$0 \$400 \$0 \$1,936	0.10289 0.10289 0.10289	38% 25%	24.67 15 4.15 3	.78 158 .12 4,536	\$0.915 \$0.108	\$0.091 0.48 \$0.005 3.91	0.52	\$0.00 \$0.00 \$0.00 \$0.00	100%	10	125 13	10	131 13	116% 100% 116% 100%	100%	76 24, 0 74	196 \$6,268	\$50,201 \$25,167	79 25,9	96 \$6,268	\$25,167
Wall Insulation from R-0 to R11 in Electrically Nation and Cooled Home Wall Insulation from R-0 to R11 in Natural Gas Heated and Electrically Cooled Home EC Fan Motor on new Residential Furnace no AC	R-11 insulation in wall cavity R-11 insulation in wall cavity ECM Furnace Fan	2,11 46 38	63 1,230 9 329 4 3,338	Empty Wall C Empty Wall C Non-ECM F	lavity 6, lavity 1, an 5	420 1,230 392 329 71 3,338	20.00 20.00 18.00	\$405 \$213 \$125	\$0 \$1,938 \$0 \$932 \$238 \$212	0.10289 0.10289 0.10289	21% 23% 50%	3.59 2 29.82 23 3.48 1	.84 5,238 .00 304 .43 691	\$0.077 \$0.702 \$0.181	\$0.005 3.91 \$0.004 4.26 \$0.035 0.92 \$0.010 0.21 \$0.037 0.24 \$0.009 0.19	1.00 1.00 0.07	\$0.00 \$0.00 \$0.00 \$0.00 -\$10.15 \$0.00	22% 100% 30%	0 11 1	2 136 13	0 11	2 143 13	116% 100% 116% 100% 116% 100%	100% 100% 100%	2 13 158 52 1 11	70 \$29,082 88 \$1,625	\$3,872 \$127,136 \$2,756 \$2,756	2 13,1 166 54,5 1 11,2	89 \$30,489	\$3,872 9 \$133,288 5 \$2,756 5 \$2,756
EC Fan Motor on new Residential Furnace no AC EC Fan Motor on existing Residential Furnace no AC EC Fan Motor on new Residential Furnace with AC EC Fan Motor on new Residential Furnace with AC EC Fan Motor on existing Residential Furnace with AC	ECM Furnace Fan ECM Furnace Fan ECM Furnace Fan	33 45 38	4 2,046 7 4,186 7 2,319	Non-ECM F Non-ECM F Non-ECM F	an 5 an 6 an 6	71 2,046 51 4,186 38 2,319	7.00 18.00 7.00	\$125 \$125 \$125	\$0 \$212 \$236 \$212 \$0 \$212	0.10289 0.10289 0.10289	59% 59% 59%	4.84 1 2.89 1 3.94 1	.98 485 .19 812 .62 582	\$0.258 \$0.154 \$0.215	\$0.037 0.24 \$0.009 0.19 \$0.031 0.25	0.07 0.17 0.17	-\$6.06 \$0.00 -\$10.15 \$0.00 -\$6.06 \$0.00	26% 79% 61%	1 1	13 12 12	1	13 12 12	116% 100% 116% 100% 116% 100%	100% 100% 100%	1 7, 2 12 2 8,	23 \$1,625 945 \$1,500 76 \$1,500	\$2,756 \$2,544 \$2,544	1 7,90 2 12,2 2 8,71	23 \$1,625 45 \$1,500 6 \$1,500	3 \$2,544
Energy Star Clothes Washer - Combo Customers w/ Electric DHW Energy Star Clothes Washer - Combo Customers w/ Cas DHW	Energy Star Clothes Washer	37	0 295	Standard Clothes	Washer 4	77 295	11.00	\$30 \$13	\$0 \$30	0.10440	100%	2.77	- 32	\$0.950 \$1.969	\$0.086 0.11 \$0.181 0.02	0.00	\$7.53 \$0.00	3%	0	1 19	0	1 10	116% 100%	100%	0 4		\$30 \$239	0 40		
Criergy oter Ciones wasner - Compo Customers wi use Uniw Heat Pump Water Heater in a home with natural gas heat and air source cooling	45 gallon Heat Pump Water Heater	4,1	96 6,929	45 gallon code n electric Water He.	ninimum ster 94.7 4;	193 6,929	10.00	\$550	\$879 \$1,588	0.10440	35%	6.32 4		\$0.200	\$0.020 0.40		-\$36.52 \$0.00	100%	0	2	0		116% 100%	100%	1 6,		\$3,175	0 0		
Heat Pump Water Heater in a home with electric resistance heat and air source cooling	45 gallon Heat Pump Water Heater	4,11	96 2,922	% EF 45 gallon code n electric Water He.	ninimum ster 94.7 4;	593 2,922	10.00	\$550	\$879 \$1,588	0.10440	35%	13.08 8	.55 1,162	\$0.473	\$0.047 0.40		\$0.00 \$0.00	100%	0	0	0	0	116% 100%	100%		so so	\$0	0 0	\$0	
Heat Pump Water Heater in a home with air source heat pump heat and air source cooling	45 gallon Heat Pump Water Heater	4,11	96 5,154	% EF 45 gallon code n electric Water He.	ninimum ster 94.7 4;	593 5,154	10.00	\$550	\$879 \$1,588	0.10440	35%		85 2,049	\$0.268	\$0.027 0.40		\$0.00 \$0.00	100%	0	0	0	0	116% 100%	_	0		\$0	0 0		
Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Electric Resistance Heat (30-50 Gallon)	High Efficiency Heat Pump Water Heater	4,2		% EF Minimum Effic Electric Water I	Sericy Hester 4)	593 931	10.00	\$550	\$959 \$611	0.10440	90%	2.15	22 2,721	\$0.202	\$0.020 0.31	0.34	\$0 \$0	100%	0	0	0	1	116% 100%	100%	0	\$0	\$0	0 3,4	19 \$550	\$611
Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & ASHP Heat (30-50 Gallon) Medium Draw Heat Pump Water Heater -	High Efficiency Heat Pump Water Heater High Efficiency	4,0		Minimum Effic Electric Water I Minimum Effic	Sericy Heater Sericy	593 1,124 593 1,278	10.00	\$550 \$550	\$959 \$611	0.10440	90%	1.88	17 3,534	\$0.156	\$0.016 0.40	0.44	\$0 \$0	100%	0	0	0	1	116% 100%	100%	0		\$0 \$0	1 4.4		
Refrigerant Based Cooling & Natural Gas Heat (30-50 Gallon) Medium Draw Heat Pump Water Heater - Non-Refrigerant Based Cooling & Electric Resistance Heat (30-50 Gallon)	Heat Pump Water Heater High Efficiency Heat Pump Water Heater High Efficiency	4,0		Electric Water I Minimum Effic Electric Water I	Heater '	500 931	10.00	\$550	\$959 \$611	0.10440	90%	221 (22 2,654	\$0.130	\$0.021 0.30	0.33	-\$37 \$0 \$0 \$0	100%	0	0	0	0	116% 100%	100%	0		\$0	0 0		
Medium Draw Heat Pump Water Heater - Non-Netrigerant Based Cooling & ASHP Heat (30-50 Gallon) Medium Draw Heat Pumo Water Heater	High Efficiency Heat Pump Water Heater High Efficiency	4,0	99 381	Minimum Effic Electric Water I Minimum Effic	Heater '	500 1,128 500 1,285		\$550 \$550	\$259 \$611 \$250 \$611	0.10440	90%	1.67	17 3,514	\$0.157	\$0.016 0.40		\$0 \$0	100%		0	0	0	116% 100%	100%	0		\$0 \$0	0 0		
Non-Refrigerant Based Cooling & Natural Gas Heat (30-50 Gallon) Refrigerator Replacements	Heat Pump Water Heater Top Mounted Freezer w/ Auto Defrost Ener	argy 60		Top Mounted Fre Auto Defrost Ref	Heater "	1,285	18.00	\$15	\$630 \$20	0.10440	75%	4.65	.16 41	\$0.130	\$0.013 0.48	0.53	-\$37 \$0 \$0.00 \$0.00	100%	2	26	2	26	116% 100%	100%	0 1.	-	\$520	0 1.3		
Removal of primary refrigerator	Star refrigerator 19.9 CT	0		19.9 CF existing primary of mostly >10 yr	mit-age	56 5,592	9.40	\$50	\$0 \$0	0.10440	#DIV/01	- (0	55) 871	\$0.057	\$0.006 0.16	0.11	\$0.00 \$0.00	64%	2	26	2	26	116% 100%	100%	3 28	85 \$1,300	\$0	3 28,4	65 \$1,300	\$0
Installation of New High Efficiency AC equipment in Existing Home - 3 Ton 15 SEER	Non - QualityInstallation of new AC 3 Ton 1 SEER	115 2,9	75 502	Non-Quality Insta 3 Ton 13 SEE Non-Quality Instal	R AC 3;	278 525	15.00	\$400 \$550	\$1,269 \$553 \$1,260 \$420	0.10440	72%		37 230	\$1.743	\$0.116 0.30		\$0.00 \$0.00	90%	۰	2	0	2	116% 100%	100%	1 5		\$1,106	1 57		
Installation of New High Efficiency AC equipment in Existing Home - 3 Ton 16 SEER Installation of New High Efficiency AC equipment in Existing Home - 3 Ton 17 SEER	SEER Non - QualityInstallation of new AC 3 Ton 1 SEER	117 2,8	56 490 55 478	3 Ton 13 SEE Non-Quality Instal 3 Ton 13 SEE	R AC 3; flation of 3; R AC 3;	278 525 278 525	15.00	\$550 \$700	\$1,269 \$829 \$1,269 \$1,106	0.10440	63%		28 323 59 405	\$1.704	\$0.114 0.42 \$0.115 0.52		\$0.00 \$0.00 \$0.00 \$0.00	90%	0	3	0	3	116% 100%	100%	1 1,		\$2,467 \$3,317	1 1,2		
Quality Install of New AC Unit in Existing Home - 3 ton 15 SEER	Provide Quality Installation of new AC 3 To 15 SEER	Fon 2,6	34 434	Non-Quality Instal 3 Ton 15 SEE Non-Quality Instal	R AC 2.1	975 502	15.00	\$0	\$0 \$104	0.10440	0%		.88 348	\$0.000	\$0.000 0.34		\$0.00 \$0.00	90%	0	2	0	2	116% 100%	100%	1 8		\$209	1 87		
Quality Install of New AC Unit in Existing Horne - 3 ton 16 SEER Quality Install of New AC Unit in Existing Horne - 3 ton 17 SEER	16 SEER Provide Quality Installation of new AC 3 To 17 SEER	2,5 Fon 2,4	31 424 43 413	3 Ton 16 SEE Non-Quality Instal 3 Ton 17 SEE	R AC 2) Ration of 2)	755 478		\$0 \$0	\$0 \$77 \$0 \$49	0.10440	0%		26 326 54 307	\$0.000	\$0.000 0.32 \$0.000 0.31		\$0.00 \$0.00	90%	0	3	0	3	116% 100%	100%	1 1,		\$230 \$148	1 1,22		
Quality Install of New AC Unit in Existing Home - 3 ton 13 SEER up to 14.99 SEER	Provide Quality Installation of new AC 3 To 13 SEER to 14.99 SEER	Ton 2,8	98 456	Non-Quality Instal 3 Ton 13 SEE	R AC 3;	278 525	15.00	\$0	\$0 \$146	0.10440	0%		49 401	\$0.000	\$0.000 0.38	_	\$0.00 \$0.00	90%	۰	0	0	0	116% 100%	100%	0	\$0	\$0	0 0	-	
Early Retirement (trade in) and Installation of High Efficiency AIC in Existing Home - 3 ton 14.5 SEER	Quality Install Existing Home High Efficience 14.5 SEER 3 Ton AC (Trade In)	ncy 2,62	92 440	3 Ton 10 SEE without Quality In	R AC statatoin 3,	992 561	7.50	\$550	\$847 \$830	0.10440	66%		54 1,054	\$0.522	\$0.070 1.30		\$0.00 \$0.00	90%	۰	0	0	0	116% 100%	100%	0		\$0	0 0		
Early Retirement (trade in) and Installation of High Efficiency AIC in Existing Home - 3 ton 15 SEER Early Retirement (trade in) and Installation of High Efficiency AIC in Existing Home - 3 ton 16	15 SEER 3 Ton AC (Trade In)	ncy 2,6:	34 434	3 Ton 10 SEE without Quality In	statatoin 33	992 561	7.50	\$950	\$847 \$1,078	0.10440	88%		.12 1,093	\$0.869	\$0.116 1.36		\$0.00 \$0.00	90%	0	1	0	1	116% 100%	100%	2 1;		\$1,078	2 1,30		
SEER	Guality Irotal Existing Home High Efficience 16 SEER 3 Ton AC (Trade In)	2,5	31 424	3 Ton 10 SEE without Quality In	statatoin 3,	992 561	7.50	\$1,100	\$847 \$1,327	0.10440	83%		87 1,165	\$0.944	\$0.126 1.46	_	\$0.00 \$0.00	90%	0	1	0	1	116% 100%	100%	2. 1/		\$1,327	2, 1,4		
Early Retirement (trade in) and Installation of High Efficiency AIC in Existing Home - 3 ton 17 SEER	17 SEER 3 Ton AC (Trade In)	ncy 2,4	43 413	3 Ton 10 SEE without Quality In: Non-Quality Instal	R AC statatoin 3,	192 561	7.50	\$1,250	\$847 \$1,576	0.10440	79%		54 1,228	\$1.018	\$0.136 1.55	_	\$0.00 \$0.00	90%	0	1	0	1	116% 100%	100%	2 1,		\$1,576	2 1,5		
Installation of 3.1 Ton capacity with 2.5 ton load , closed loop, 14.1 EER GSHP in new 2460 SF New Home - Install GSHP Cooling	with 2.5 ton load , closed loop, 14.1 EER	RP 2,11	1	2.5 Ton 13 SEEI with 2.5 ton I	R ASHP 2.) bad flation of	183 536		\$930	\$1,057 \$1,460	0.10440	64%		87 401	\$2.321	\$0.116 0.56	0.54	\$0.00 \$0.00	90%	0	2	0	2	116% 100%	100%	1 1/		\$2,920	1 1,00		
Installation of 4.7 Ton capacity closed loop, 14.1 EER GSHP with 3 ton load in existing 2296 SF Existing home - Install GSHP Cooling	closed loop, 14.1 EER with 3 ton load	2,50	53 352	3 Ton 13 SEE with3ton load, I Non Quality Instal	R AC 3; No QI flation of	278 525	20.00	\$1,410	\$1,269 \$1,752	0.10440	80%	20.39	98 823	\$1.713	\$0.086 0.72	0.71	\$0.00 \$0.00	90%	0	0	0	۰	116% 100%	100%	0	\$0	\$0	0 0	\$0	\$0
Installation of 37400 Btuhr heating capacity with 2.5 ton cooling load , closed loop, 14.1 EER GSHP in new 2460 SP New Home - Install GSHP Heating	Quality Installation of GSHP 3.3 COP 3742 Bashr capacity	126 3,3	24 999	New Home ASI HSPF 2.4 COP Bluftr cipse	HP 8.2 37426 city 43	1,098	20.00	\$930	\$2,425 \$1,821	0.10440	51%	10.32	.05 1,690	\$0.550	\$0.028 1.24	1.21	\$0.00 \$0.00	90%	0	2	0	2	116% 100%	100%	3 4;	49 \$1,860	\$3,643	3 4,2	19 \$1,860	\$3,643
Installation of 56000 Bouhr heating capacity closed loop, 14.1 EER QSMP with 3 ton cooling load in existing 2206 SF Existing home - Install QSMP Heating	Quality Installation of GSHP 3.3 COP 5599 Blatty capacity	4,9	73 1,094	Non Quality Instal Ducted Elec Resistance He	listion of stric 16, sating	822 1,827	20.00	\$1,410	\$1,866 \$2,725	0.10440	52%	1.03	50 25,302	\$0.056	\$0.003 11.85	11.55	\$0.00 \$0.00	90%	٥	0	0	٥	116% 100%	100%	0	so so	\$0	0 0	\$0	\$0
Average Value LED Bulb Average Value LED Bulb	Average LED Bulb	10	909	Average EISA S halogen A-Styli Average EISA S	tenderd e Bulb tenderd	3 909	7.10	\$2.00 \$2.00	\$1 \$2.22	0.10400	90%		.07 30 04) 30	\$0.006 \$0.006	\$0.009 0.03 \$0.011 0.03	0.00	\$0.00 \$0.00 \$0.00 \$0.00	8%	445	5,722	0	5,982	116% 100%	100%		988 \$11,444 \$0	\$12,691	0 0	\$0 885 \$11,984	\$0 4 \$11,199
Evaporative Cooling Replacing 13 SEER central AIC (Tier 1) Replacement (Denver/Front	Average LED Buth 3 Ton Evaporative Cooler	38	909 8 465	halogen A-Style ST SEER 13 EE Wo Quality Inst	e Bulb R 11.18 allation 3,	220 465	15.00	\$2.00 \$125.00	\$1,931.00 -\$709.00	0.10400	-18%		04) 30	\$0.065	\$0.011 0.03		\$0.00 \$0.00 -\$19.92 \$0.00	70%	0	1	0	5,982	116% 100%	100%		55 \$125	\$0 -\$709	20 227,1		
Range) Evaporative Cooling Replacing 13 SEER central AC (Tier 1) 1st Time Install (DenverliFront Range) High Efficiency Evaporative Replacing 13 SEER AC 3 ton; (Tier 2) Replacement	3 Ton Evaporative Cooler	38	8 465	3T SEER 13 EE w/o Quality Inst 3T SEER 13 EE	R 11.18 allation 3; R 11.18	220 465	15.00	\$275.00	\$1,931.00 -\$709.00	0.10440	-39%		37) 1,317	\$0.209	\$0.014 2.83		-\$19.92 \$0.00	70%	0	1	0	1	116% 100%	100%		55 \$275	-\$709	2 1,61		
(Denver/Front Range) High Efficiency Evaporative Replacing 13 SEER AIC 3 ton; (Tier 2) 1st Time Install	High Effic Evaporative Cooler 3 Tons High Effic Evaporative Cooler 3 Tons	38	8 465	w/o Quality Inst ST SEER 13 EE w/o Quality Inst	R 11.18 aliation 3;	220 465 220 465	15.00	\$525.00 \$625.00	\$1,931.00 \$308.34 \$1,931.00 \$308.34	0.10440	170%		68) 1,317 45) 1,317	\$0.399	\$0.027 2.83 \$0.032 2.83		-\$8.37 \$0.00 -\$8.37 \$0.00	70%	0	1	0	1	116% 100%	100%	2 1)	21 \$2,100 55 \$625	\$1,233 \$308	10 6,6:		
(DenvetiFront Range) High Efficiency Evaporative Replacing 13 SEER central AIC 3 ton; (Tier 3) Replacement (DenvetiFront Range) Evaporative Cooling Replacing 13 SEER central AIC (Tier 1) Replacement (Grand	Integrated HVAC with Hi Effic Evap System	ım 76	1 465	ST SEER 13 EE Wo Quality Inst	R 11.18 3; elletion 3; R 11.18	220 465	15.00	\$1,000.00	\$1,931.00 \$1,694.51	0.10440	50%		25 1,144	\$0.874	\$0.058 2.46		-\$8.37 \$0.00	70%	1	8	1	8	116% 100%	100%		198 \$8,000	\$13,556	17 11,4		
Junction/Western Stope) Evaporative Cooling Replacing 13 SEER central A/C (Tier 1) 1st Time Install (Grand	3 Ton Evaporative Cooler 3 Ton Evaporative Cooler	38	8 478 8 478	w/o Quality Inst	R 11.18 3;	220 478	15.00	\$125.00 \$275.00	\$1,931.00 -\$709.00 \$1,931.00 -\$709.00	0.10440	-18%		88) 1,352 11) 1,352	\$0.092 \$0.203	\$0.006 2.83 \$0.014 2.83		-\$19.92 \$0.00 -\$19.92 \$0.00	70%	0	0	0	0	116% 100%	100%		\$0	\$0 \$0	0 0		
Junction/Western Stope) High Efficiency Evaporative Replacing 13 SEER AIC 3 ton; (Tier 2) Replacement (Grand Junction/Western Stope) High Efficiency Evaporative Replacing 13 SEER AIC 3 ton; (Tier 2) 1st Time Install (Grand	High Effic Evaporative Cooler 3 Tons	38	8 478	ST SEER 13 EE	R 11.18 3; elistion 3;	220 478	15.00	\$525.00	\$1,931.00 \$308.34	0.10440	170%	2.32 (1	63) 1,352	\$0.388	\$0.026 2.83	2.15	\$8.37 \$0.00	70%	0	0	0	0	116% 100%	100%	0	\$0	\$0	0 0	\$0	\$0
Junction/Western Slope) High Efficiency Evaporative Replacing 13 SEER central AIC 3 ton; (Tier 3) Replacement	High Effic Evaporative Cooler 3 Tons Integrated HVAC with Hi Effic Evap System	im 76	15 478 11 478	wo Quality Inst	R 11.18 3;	220 478	15.00	\$625.00	\$1,931.00 \$308.34 \$1,931.00 \$1,894.51	0.10440	203%		38) 1,352 .08 1,174	\$0.462 \$0.852	\$0.031 2.83 \$0.057 2.46	_	-\$8.37 \$0.00 -\$8.37 \$0.00	70%	0	0	0	0	116% 100%	100%		\$0	\$0 \$0	0 0		
(Grand JunctionWeatern Stope) Evaporative Cooling Replacing 13 SEER central AIC (Tier 1) Replacement (Alamosa/Mountain Areas)	3 Ton Evaposative Cooler	38	8 281	ST SEER 13 EE w/o Quality Inst	R 11.18 3;	220 261	15.00	\$125.00	\$1,931.00 -\$709.00	0.10440	-18%	(12.38) (14	57) 739	\$0.169	\$0.011 2.83	2.15	-\$19.92 \$0.00	70%	۰	0	0	0	116% 100%	100%	0	\$0	\$0	0 0	\$0	\$0
Areas) Evaporative Cooling Replacing 13 SEER central A/C (Tier 1) 1st Time Install (Alamosa/Mountain Areas) High Efficiency Evaporative Replacing 13 SEER A/C 3 ton; (Tier 2) Replacement	3 Ton Evaporative Cooler High Effic Evaporative Cooler 3 Tone	38	8 261	3T SEER 13 EE w/o Quality Inst 3T SEER 13 EE	R 11.18 3; elistion 3; R 11.18 3;	220 261	15.00	\$275.00	\$1,931.00 -\$709.00 \$1,931.00 \$308.34	0.10440	-39% 170%	(12.38) (17 4.48 (3	19) 739 15) 739	\$0.372 \$0.710	\$0.025 2.83 \$0.047 2.83	_	-\$19.92 \$0.00 -\$8.37 \$0.00	70%	0	0	0	0	116% 100%	100%		\$0	\$0 \$0	0 0		
(Alamosa/Mountain Areas) High Efficiency Evaporative Replacing 13 SEER A/C 3 ton; (Tier 2) 1st Time Install (Alamosa/Mountain Areas) High Efficiency Evaporative Replacing 13 SEER central A/C 3 ton; (Tier 3) Replacement	High Effic Evaporative Cooler 3 Tons	38	8 261	w/o Quality Inst ST SEER 13 EE w/o Quality Inst	R 11.18 3; elistion	220 281	15.00	\$625.00	\$1,931.00 \$308.34	0.10440	203%		60) 739	\$0.846	\$0.056 2.83	_	\$8.37 \$0.00	70%	0	0	0	0	116% 100%	100%	0		\$0	0 0		
High Efficiency Evaporative Replacing 13 SEER central AIC 3 ton; (Tier 3) Replacement (Alamosa/Mountain Areas) Install and program a new Seback Thermostat	Integrated HVAC with Hi Effic Evap System Energy Star Programable thermostal (set ba	em 76 back	1 261	ST SEER 13 EE w/o Quality Inst standard therm	R 11.18 3; allation catal -	220 261	15.00	\$1,000.00	\$1,931.00 \$1,694.51	0.10440	50%		.84 642 .01 118	\$1.558 \$0.108	\$0.104 2.46 \$0.011 0.14		\$8.37 \$0.00	70%	0 5	0	0	0	116% 100%	100%	9 9,	73 \$797	\$0 \$1,595	9 9,4		
program a new persucx i nermostat	1.33 F derived from RECS2009 data)	2,9	580	manually adju	sted 3,	592	10.00	\$12.46	\$24.92	0.10440	50%	2.03	.01 118	şu.105	0.14 م	0.12	\$0.00	16%	5	04		64	116% 168%	100%		5797	\$1,595	9 9,4	\$797	\$1,595

	Gas Product Detailed Technical Assumptions Measure Description High Efficiency Product Assumptions Baseline Product Assumptions Economic Assumptions Stipulated Output Economic Assumptions																1	Program Fo	Stipu	lated Forecast	Inputs	Pro	gram Forecast Ou	ıtputs	Prog	utputs				
Measure Description	High Efficiency Product	Assumptions	Baseline Product Assu		Ec	onomic Assumptions					Stipulate	ed Output			Economic	Assumptions	2	017	20	118	Valid Ti	hroughout 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)		Incremt'l Cos I Payback Perio w/o Rebate	od Payback Period		Average rebated cost per Dth Saved	Average rebated Lifetime cost per Dth Saved			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 (\$)
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	\$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	\$350,258 \$51,626	\$1,351,240 \$176,814	26,863 3,792	\$350,258 \$51,626	\$1,354,574 \$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 R9 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 2324	31	Baseline home with CFM50 rating of 3223	44	10	\$243	\$0	\$960	\$5.24	25%	15.10641993	11.28201264	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 2324	31	Baseline home with CFM50 rating of 3223	44	10	\$253	\$0	\$560	\$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	3 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		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	26	Minimum Efficiency Tank-Type Water Heater	28	13	\$100	950	376	\$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	23	Minimum Efficiency Tank-Type Water Heater	26	13	\$100	870	125	\$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 Wate 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	17	Minimum Efficiency Tank-Type Water Heater	26	20	\$200	1071	866	\$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	18	Minimum Efficiency Tank-Type Water Heater	29	20	\$200	975	783	\$5.24	26%	13.60414746		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	3 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 Programable 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	3 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