

| Measure Description | | Electric Product Detailed Technical Assumptions | | | | | | | | | | Stipulated Output | | | | | | Economic Assumptions | | Technical Assumption | | Program Forecast Inputs | | Stipulated Forecast Inputs | | | | Program Forecast Outputs | | | | | | |
|---|--|--|---------------------------------------|---------------------------------------|--|--------------------------------------|--------------------------------------|--------------------------|--------------------|------------------------------------|--|------------------------------|-----------------------------------|---|---|--------------------------------------|---|--|----------------------------|--------------------------------|-----------------------------|-------------------------|------------------------|----------------------------|----------------|---------|-----------------------|--------------------------|----------------------|------------------------|-------------------------|-----------------------------|--------------------------------|--|
| | | High Efficiency Product Assumptions | | Baseline Product Assumptions | | Economic Assumptions | | Stipulated Output | | Economic Assumptions | | Technical Assumption | | Program Forecast Inputs | | Stipulated Forecast Inputs | | Program Forecast Outputs | | | | | | | | | | | | | | | | |
| Electric Measure Group | 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 | Incremental Cost Payback Period w/ Rebate (yrs) | Incremental Cost Payback Period w/ Rebate (yrs) | Annual Customer kWh Savings (kWh/yr) | Rebated Cost / Cost with Saved (\$/kWh) | Rebated Lifetime Cost / Cost with Saved (\$/kWh) | Customer kWh Savings (kWh) | Generator Peak kW Savings (kW) | Non-Energy O&M Savings (\$) | Energy O&M Savings (\$) | Coincidence Factor (%) | 2020 Participants (1) | 2020 Units (1) | NTG (%) | Installation Rate (%) | Realization Rate (%) | 2020 NET Gen kW (kW) | 2020 NET Gen kWh (kWh) | 2020 Rebate Budget (\$) | 2020 Incremental Costs (\$) | Measure Load Shape | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attic Insulation | Attic Insulation in Electrically Heated and non-cooled Home | Existing Home with Attic Insulation added to achieve R-54 | 486 | 1,150 | Existing home with R6 attic insulation and average heating efficiency of 1.51 COP | 2,343 | 1,150 | 20.00 | \$267 | \$0 | \$1,506 | 0.12075 | 18% | 5.74 | 4.724854815 | 2,175 | \$0.123 | \$0.006 | 1.88 | 0.00 | \$0.00 | \$0.00 | 0% | 1 | 2 | 116% | 100% | 100% | 0 | 5,390 | \$534 | \$3,016 | CO-Res_Heating_Elec | |
| Attic Insulation | Attic Insulation in Electrically Heated and Cooled Home | Existing Home with Attic Insulation added to achieve R-54 | 486 | 1,262 | Existing home with R6 attic insulation and average heating efficiency of 1.51 COP and cooling efficiency of 3.93 COP | 2,343 | 1,262 | 20.00 | \$300 | \$0 | \$1,506 | 0.12075 | 20% | 5.36 | 4.29 | 2,330 | \$0.129 | \$0.006 | 1.88 | 0.52 | \$0.00 | \$0.00 | 20% | 1 | 2 | 116% | 100% | 100% | 1 | 5,774 | \$600 | \$3,016 | CO-Res_Cooling_DX_Heating_Elec | |
| Attic Insulation | Attic Insulation in Natural Gas Heated and Electrically Cooled Home | Existing Home with Attic Insulation added to achieve R-54 | 117 | 325 | Existing home with R6 attic insulation and average cooling efficiency of 3.93 COP | 588 | 325 | 20.00 | \$214 | \$0 | \$785 | 0.12075 | 27% | 41.87 | 30.47 | 155 | \$1.377 | \$0.069 | 0.47 | 0.52 | \$0.00 | \$0.00 | 100% | 114 | 215 | 116% | 100% | 100% | 129 | 41,342 | \$45,946 | \$168,690 | CO-Res_Cooling_DX | |
| Air Sealing & Weather-stripping T2 | Tier 2 Air Sealing & Bypass Sealing for minimum 20%ACH Reduction in Electrically Heated and non-cooled Home | Home with Tier 2 Air Sealing: CFM50 reading of 2324 | 5,436 | 1,150 | Baseline home with CFM50 rating of 3223 | 8,134 | 1,150 | 10.00 | \$171 | \$0 | \$960 | 0.12075 | 18% | 2.60 | 2.14 | 3,058 | \$0.056 | \$0.006 | 2.64 | 0.00 | \$0.00 | \$0.00 | 0% | 1 | 2 | 116% | 100% | 100% | 0 | 7,578 | \$342 | \$1,520 | CO-Res_Heating_Elec | |
| Air Sealing & Weather-stripping T2 | Tier 2 Air Sealing & Bypass Sealing for minimum 20%ACH Reduction in Electrically Heated and Cooled Home | Home with Tier 2 Air Sealing: CFM50 reading of 2324 | 5,534 | 1,194 | Baseline home with CFM50 rating of 3223 | 8,173 | 1,194 | 10.00 | \$233 | \$0 | \$960 | 0.12075 | 24% | 2.52 | 1.91 | 3,150 | \$0.074 | \$0.007 | 2.64 | 0.31 | \$0.00 | \$0.00 | 11% | 1 | 2 | 116% | 100% | 100% | 1 | 7,806 | \$467 | \$1,520 | CO-Res_Cooling_DX_Heating_Elec | |
| 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 reading of 2324 | 722 | 325 | Baseline home with CFM50 rating of 3041 | 1,061 | 325 | 10.00 | \$42 | \$0 | \$436 | 0.12075 | 10% | 39.31 | 35.56 | 92 | \$0.453 | \$0.045 | 0.28 | 0.31 | \$0.00 | \$0.00 | 100% | 69 | 130 | 116% | 100% | 100% | 46 | 14,784 | \$5,401 | \$56,634 | CO-Res_Cooling_DX | |
| Air Sealing & Weather-stripping T3 | Tier 3 Air Sealing & Bypass Sealing for minimum 30%ACH Reduction in Electrically Heated and non-cooled Home | Home with Tier 3 Air Sealing: CFM50 reading of 2070 | 6,188 | 1,150 | Baseline home with CFM50 rating of 3041 | 10,841 | 1,150 | 10.00 | \$92 | \$0 | \$955 | 0.12075 | 16% | 1.47 | 1.33 | 5,362 | \$0.017 | \$0.002 | 4.65 | 0.00 | \$0.00 | \$0.00 | 0% | 1 | 2 | 116% | 100% | 100% | 0 | 13,362 | \$183 | \$1,910 | CO-Res_Heating_Elec | |
| Air Sealing & Weather-stripping T3 | Tier 3 Air Sealing & Bypass Sealing for minimum 30%ACH Reduction in Electrically Heated and Cooled Home | Home with Tier 3 Air Sealing: CFM50 reading of 2070 | 6,188 | 1,193 | Baseline home with CFM50 rating of 3041 | 10,841 | 1,193 | 10.00 | \$100 | \$0 | \$955 | 0.12075 | 31% | 1.43 | 0.98 | 5,500 | \$0.054 | \$0.005 | 4.65 | 0.53 | \$0.00 | \$0.00 | 10% | 1 | 2 | 116% | 100% | 100% | 1 | 13,753 | \$600 | \$1,910 | CO-Res_Cooling_DX_Heating_Elec | |
| 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 reading of 2070 | 639 | 325 | Baseline home with CFM50 rating of 3041 | 1,117 | 325 | 10.00 | \$72 | \$0 | \$436 | 0.12075 | 17% | 11.17 | 10.50 | 158 | \$0.458 | \$0.046 | 0.48 | 0.53 | \$0.00 | \$0.00 | 100% | 69 | 130 | 116% | 100% | 100% | 80 | 25,407 | \$9,357 | \$56,641 | CO-Res_Cooling_DX | |
| Wall Insulation | Wall Insulation from R-0 to R11 in Electrically Heated and non-cooled Home | R-11 insulation in wall cavity | 2,507 | 1,150 | Empty Wall Cavity | 8,420 | 1,150 | 20.00 | \$156 | \$0 | \$1,506 | 0.12075 | 8% | 3.53 | 3.26 | 4,536 | \$0.033 | \$0.002 | 3.91 | 0.00 | \$0.00 | \$0.00 | 0% | 1 | 1 | 116% | 100% | 100% | 0 | 5,620 | \$150 | \$1,836 | CO-Res_Heating_Elec | |
| Wall Insulation | Wall Insulation from R-0 to R11 in Electrically Heated and Cooled Home | R-11 insulation in wall cavity | 2,163 | 1,230 | Empty Wall Cavity | 6,420 | 1,230 | 20.00 | \$296 | \$0 | \$1,836 | 0.12075 | 15% | 3.06 | 2.59 | 5,238 | \$0.056 | \$0.003 | 4.26 | 1.02 | \$0.00 | \$0.00 | 22% | 1 | 1 | 116% | 100% | 100% | 1 | 6,490 | \$296 | \$1,836 | CO-Res_Cooling_DX_Heating_Elec | |
| Wall Insulation | Wall Insulation from R-0 to R11 in Natural Gas Heated and Electrically Cooled Home | R-11 insulation in wall cavity | 488 | 325 | Empty Wall Cavity | 1,922 | 325 | 20.00 | \$207 | \$0 | \$1,011 | 0.12075 | 20% | 27.55 | 21.90 | 304 | \$0.682 | \$0.034 | 0.92 | 1.02 | \$0.00 | \$0.00 | 100% | 53 | 100 | 116% | 100% | 100% | 118 | 37,640 | \$20,718 | \$101,005 | CO-Res_Cooling_DX | |
| Heat Pump Water Heater | Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Electric Resistance Heat (20-50 Gallon) + CEI/ANSI Communications Port | High Efficiency Heat Pump Water Heater | 4,218 | 367 | Minimum Efficiency Electric Water Heater | 4,983 | 631 | 12.00 | \$500 | \$959 | \$611 | 0.12075 | 82% | 1.86 | 0.34 | 2,721 | \$0.184 | \$0.015 | 0.58 | 0.63 | \$0.00 | \$0.00 | 100% | 3 | 6 | 116% | 100% | 100% | 4 | 20,226 | \$3,000 | \$3,689 | CO-RES-SFWHT | |
| Heat Pump Water Heater | Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & ASHP Heat (20-50 Gallon) + CEI/ANSI Communications Port | High Efficiency Heat Pump Water Heater | 4,028 | 405 | Minimum Efficiency Electric Water Heater | 4,983 | 1,124 | 12.00 | \$500 | \$959 | \$611 | 0.12075 | 82% | 1.43 | 0.26 | 3,534 | \$0.141 | \$0.012 | 0.57 | 0.62 | \$0.00 | \$0.00 | 100% | 2 | 3 | 116% | 100% | 100% | 2 | 13,135 | \$1,500 | \$1,834 | CO-RES-SFWHT | |
| Heat Pump Water Heater | Medium Draw Heat Pump Water Heater - Refrigerant Based Cooling & Natural Gas Heat (20-50 Gallon) + CEI/ANSI Communications Port | High Efficiency Heat Pump Water Heater | 4,028 | 405 | Minimum Efficiency Electric Water Heater | 4,983 | 1,276 | 12.00 | \$500 | \$959 | \$611 | 0.12075 | 82% | 1.30 | 0.24 | 4,240 | \$0.118 | \$0.010 | 0.57 | 0.62 | \$42.44 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 1 | 5,253 | \$500 | \$611 | CO-RES-SFWHT | |
| Installation of Qualifying Efficiency AC equipment with Qi - Existing Home | High Efficiency AC with Qi | Residential Air Conditioner - Qualifying Efficiency + Qi (Nominal 16.0 SEER & 2.52 Tons) | 2,542 | 642 | Non-Qualifying Installation of 1-Ton 13 SEER AC | 3,383 | 737 | 18.00 | \$200 | \$0 | \$913 | 0.12075 | 55% | 10.46 | 4.74 | 721 | \$0.693 | \$0.039 | 0.65 | 0.64 | \$0.00 | \$0.00 | 90% | 1 | 1 | 116% | 100% | 100% | 1 | 894 | \$500 | \$913 | CO-Res_Cooling_DX | |
| Installation of Non-Qualifying Efficiency AC equipment with Qi - Existing Home | Standard Efficiency AC with Qi | Residential Air Conditioner - Non-Qualifying Efficiency + Qi (Nominal 13.0 SEER & 2.44 Tons) | 3,033 | 685 | Non-Qualifying Installation of 1-Ton 13 SEER AC | 3,383 | 736 | 18.00 | \$300 | \$0 | \$157 | 0.12075 | 191% | 2.71 | (2.47) | 480 | \$0.626 | \$0.035 | 0.35 | 0.35 | \$0.00 | \$0.00 | 90% | 0 | 0 | 116% | 100% | 100% | 0 | 0 | \$0 | \$0 | CO-Res_Cooling_DX | |
| Installation of Non-Qualifying Efficiency AC equipment and associated Furnace with Qi - Existing Home | Standard Efficiency AC with Qi and associated furnace | Residential Air Conditioner - Non-Qualifying Efficiency + Qi w/ associated Furnace (Nominal 13.15 SEER & 2.4 tons) | 3,009 | 688 | Residential Air Conditioner - Non-Qualifying Efficiency w/ Qi | 3,382 | 780 | 18 | \$192.96 | 0 | 108 | 0.12075 | 178% | 1.87 | (1.47) | 478 | \$0.403 | \$0.022 | 0.34 | 0.34 | \$0.00 | \$0.00 | 90% | 0 | 0 | 100% | 100% | 100% | 0 | 0 | \$0 | \$0 | CO-Res_Cooling_DX | |
| Installation of Qualifying Efficiency AC equipment and associated furnace with Qi - Existing Home | High Efficiency AC without Qi and associated furnace | Residential Air Conditioner - Qualifying Efficiency + Qi w/ associated Furnace (Nominal 15.83 SEER & 2 Tons) | 2,740 | 714 | Residential Air Conditioner - Non-Qualifying Efficiency w/ Qi | 3,050 | 741 | 18 | \$200.00 | 0 | 647 | 0.12075 | 31% | 15.80 | 10.92 | 339 | \$0.589 | \$0.033 | 0.36 | 0.35 | \$0.00 | \$0.00 | 90% | 1 | 2 | 100% | 100% | 100% | 1 | 725 | \$400 | \$1,295 | CO-Res_Cooling_DX | |
| Installation of Qualifying Efficiency AC equipment and associated furnace with Qi - Existing Home | Quality Install of High Efficiency AC with associated furnace | Residential Air Conditioner - Qualifying Equip. Qi Only w/ associated furnace (Nominal 15.83 SEER & 3 Tons) | 2,441 | 649 | Residential Air Conditioner - Non-Qualifying Efficiency w/ Qi | 2,740 | 714 | 18 | \$182.52 | 0 | 74 | 0.12075 | 247% | 1.65 | (2.43) | 370 | \$0.493 | \$0.027 | 0.30 | 0.30 | \$0.00 | \$0.00 | 90% | 1 | 2 | 100% | 100% | 100% | 1 | 791 | \$365 | \$148 | CO-Res_Cooling_DX | |
| Ground Source Heat Pump | Installation of Qualifying Efficiency GSHP equipment with Qi - New Home, ASHP Heating & Cooling Baseline - High Efficiency GSHP with Qi | Residential Closed Loop GSHP + Qi (Nominal 14.1 EER Cooling & 3.3 COP Heating & 36000 BTU/h) | 4,263 | 1,444 | Residential Air Source Heat Pump - Non-Qualifying Efficiency w/ Qi | 5,962 | 1,360 | 30.00 | \$1,200 | \$0 | \$2,440 | 0.12075 | 49% | 13.48 | 6.85 | 1,499 | \$0.801 | \$0.040 | 1.60 | 0.66 | \$0.00 | \$0.00 | 98% | 0 | 0 | 116% | 100% | 100% | 0 | 0 | \$0 | \$0 | CO-Res_Cooling_DX_Heating_DX | |
| Ground Source Heat Pump | Installation of Qualifying Efficiency GSHP equipment with Qi - Existing Home & Electric Heating & AC Cooling Baseline - High Efficiency GSHP with Qi | Residential Closed Loop GSHP + Qi (Nominal 14.1 EER Cooling & 3.3 COP Heating & 36000 BTU/h) | 4,263 | 5,657 | Ducted Electric Resistance Htg. - w/ Qi | 14,420 | 3,231 | 20.00 | \$1,200 | \$0 | \$2,453 | 0.12075 | 49% | 0.90 | 0.46 | 22,469 | \$0.053 | \$0.003 | 10.16 | 0.85 | \$0.00 | \$0.00 | 8% | 1 | 1 | 116% | 100% | 100% | 1 | 27,841 | \$1,200 | \$2,453 | CO-Res_Cooling_DX_Heating_DX | |
| Energy Star Smart Thermostat | Install Energy Star certified smart thermostat - ELECTRIC ONLY | Average Single Family Home with EnergyStar Smart Thermostat | 2,621 | 573 | Average Single Family Home with Standard Thermostat | 2,912 | 573 | 10.00 | \$50.00 | \$0.00 | \$137.04 | 0.12075 | 36% | 6.80 | 4.32 | 167 | \$0.300 | \$0.030 | 0.29 | 0.24 | \$0.00 | \$0.00 | 70% | 40 | 75 | 100% | 100% | 100% | 18 | 13,367 | \$3,750 | \$10,278 | CO-RES-FLAT | |
| Energy Star Smart Thermostat | Install Energy Star certified smart thermostat - COMBO | Average Single Family Home with EnergyStar Smart Thermostat | 2,621 | 573 | Average Single Family Home with Standard Thermostat | 2,912 | 573 | 10.00 | \$31.87 | \$0.00 | \$137.04 | 0.12075 | 23% | 6.80 | 5.22 | 167 | \$0.191 | \$0.019 | 0.29 | 0.24 | \$0.00 | \$0.00 | 70% | 18 | 33 | 100% | 100% | 100% | 8 | 5,882 | \$1,052 | \$4,522 | CO-RES-FLAT | |
| ES Clothes Washer | Energy Star Front-loading Clothes Washer - Combo Customers w/ Electric DHW | Energy Star Front-loading Clothes Washer - Combo Customers w/ Electric DHW | 1,785 | 360 | Conventional Top-Loading Clothes Washer | 3,080 | 360 | 10.00 | \$30 | \$0 | \$90 | 0.12075 | 60% | 1.86 | 0.76 | 151 | \$0.199 | \$0.016 | 0.51 | 0.02 | \$0.00 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 0 | 186 | \$30 | \$50 | CO-RES-SPLIT | |
| ES Clothes Washer | Energy Star Front-Loading Clothes Washer - Combo Customers w/ Gas DHW | Energy Star Front-Loading Clothes Washer - Combo Customers w/ Gas DHW | 1,675 | 360 | Conventional Top-Loading Clothes Washer | 3,080 | 360 | 10.00 | \$28 | \$0 | \$90 | 0.12075 | 60% | 2.03 | 0.81 | 125 | \$0.221 | \$0.020 | 0.42 | 0.02 | \$0.00 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 0 | 155 | \$28 | \$46 | CO-RES-SPLIT | |
| ES Clothes Washer | Energy Star Top-loading Clothes Washer - Combo Customers w/ Electric DHW | Energy Star Top-loading Clothes Washer - Combo Customers w/ Electric DHW | 1,785 | 360 | Conventional Top-Loading Clothes Washer | 3,080 | 360 | 10.00 | \$30 | \$0 | \$90 | 0.12075 | 16% | 2.21 | 1.86 | 397 | \$0.076 | \$0.007 | 1.34 | 0.05 | \$0.00 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 0 | 491 | \$30 | \$190 | CO-RES-SPLIT | |
| ES Clothes Washer | Energy Star Top-Loading Clothes Washer - Combo Customers w/ Gas DHW | Energy Star Top-Loading Clothes Washer - Combo Customers w/ Gas DHW | 1,785 | 360 | Conventional Top-Loading Clothes Washer | 3,080 | 360 | 10.00 | \$27 | \$0 | \$90 | 0.12075 | 16% | 2.38 | 2.01 | 306 | \$0.087 | \$0.008 | 1.04 | 0.04 | \$0.00 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 0 | 379 | \$27 | \$189 | CO-RES-SPLIT | |
| ES Clothes Dryer | Energy Star Clothes Dryer | Energy Star Clothes Dryer - 4.5 cu. ft. | 1,133 | 360 | Conventional Clothes Dryer | 1,660 | 360 | 11.00 | \$30 | \$0 | \$95 | 0.12075 | 40% | 6.32 | 3.79 | 98 | \$0.305 | \$0.025 | 0.35 | 0.01 | \$0.00 | \$0.00 | 100% | 1 | 1 | 116% | 100% | 100% | 0 | 122 | \$30 | \$75 | CO-RES-SPLIT | |
| Evap Cooling (Denver/Front Range) | Premium evaporative cooler | High Effic. Evaporative Cooler 3 Tons | 360 | 549 | 17 SEER 13 EER 11.16 w/ Quality Installation | 3,300 | 549 | 15.00 | \$675.00 | \$3,810.00 | \$1,032.26 | 0.12075 | -65% | (5.57) | (9.22) | 1,803 | \$0.421 | \$0.028 | 2.92 | 2.25 | \$8.92 | \$0.00 | 70% | 4 | 7 | 116% | 100% | 100% | 18 | 13,804 | \$4,725 | \$7,226 | CO-Res_Cooling_DX | |
| Evap Cooling (Grand Junction/Western Slope) | Premium evaporative cooler | High Effic. Evaporative Cooler 3 Tons | 360 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |