

ESTIMATED GAS SAVINGS

| Residential Appliance Program | | |
|---|-----------------------|---|
| Measure | Annual Savings | Source |
| Clothes Washer Tier 1 | 1.58 DTH/unit | Energy Trust of Oregon 2006 |
| Clothes Washer Tier 2 | 2.04 DTH/unit | |
| Clothes Dryer | 1.02 DTH/unit | GDS Report 2004 |
| Standard Water Heater | 2.70 DTH/unit | GDS Report 2004 |
| Tankless Water Heater | 10.20 DTH/unit | Pacific Gas & Electric Davis Energy Group 2004 |
| High Efficiency Furnace | 14.20 DTH/unit | ENERGY STAR Furnace Calculator http://energystar.gov/index.cfm?c=furnaces.pr_furnaces |
| Commercial Rebate Program | | |
| High-efficiency storage gas water heater | 2.70 DTH/unit | GDS Report 2004 |
| | 13.13 DTH/unit | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High-efficiency tankless gas water heater | 10.58 DTH/unit | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High Efficiency Clothes Washer | 1.58 DTH/unit | Energy Trust of Oregon 2006 |
| | 2.04 DTH/unit | |
| | 7.70 DTH/unit | Consortium for Energy Efficiency 1998 |
| Gas Clothes Dryer | 1.02 DTH/unit | GDS Report 2004 |
| Low Flow Pre-Rinse Spray Valve | 33.60 DTH/unit | California Urban Water Conservation Council, Rinse & Save Program Evaluation 2005 |
| High Efficiency Gas Furnaces | 14.20 DTH/unit | ENERGY STAR Furnace Calculator |
| | 16.20 DTH/unit | |
| | 18.10 DTH/unit | |
| Boilers (hot water) | 17.96 DTH/Unit | ENERGY STAR Boiler Calculator |
| | 101.79 DTH/Unit | |
| Boilers (steam) | 17.96 DTH/Unit | ENERGY STAR Boiler Calculator |
| | 22.34 DTH/Unit | |
| Direct Contact Water Heater | 1603.00 DTH/Unit | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High Efficiency Unit Heater | 12.14 DTH/Unit | PG&E 2004 and ACEEE 2003 Reports |
| | 37.32 DTH/Unit | |
| Infrared Heating System | 28.88 DTH/System | 1) Gas Networks Savings Estimates 2) GDS Report 3) ASHRAE Research #4643 |
| Programmable Thermostat | 11.50 DTH/Unit | DOE Study, located at: http://www.eere.energy.gov/consumer/your_home/space_heating_cooling/index.cfm/mytopic=12720 |

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| Boiler Outside Air Reset Control | 74.10 DTH/Unit | GDS Report 2004 |
| Boiler Tune-up | 48.86 DTH/Unit | CA Statewide Gas Potential Study Kema-Xenergy 2003 |
| ENERGY STAR New Homes | | |
| Standard Water Heater | 2.70 DTH/Unit | GDS Report 2004 |
| Tankless Water Heater | 10.2 DTH/Unit | Pacific Gas & Electric by Davis Energy Group 2004 |
| High Efficiency Furnace | 9.1 DTH/Unit | ENERGY STAR Furnace Calculator |
| ENERGY STAR Homes | 23.4 DTH/home | RMP Cost Effective Inputs for ENERGY STAR Homes Program |
| Residential Home Energy Audit and Weatherization Program | | |
| Water Heater Blanket | 2.2 DTH/system | Nexant 2006 Market Study Report |
| Pipe Insulation | 1.40 DTH/system | DOE Rebuild America Reenergize Energy Efficiency Guidebook |
| Faucet Aerator | 0.44 DTH/Unit | DOE Rebuild America Reenergize Energy Efficiency Guidebook |
| Low Flow Shower Head | 5.79 DTH/Unit | Nexant 2006 Market Study Report |
| Programmable Thermostat | 2.66 DTH/Unit | ENERGY STAR with 20% persistence assumption |
| Windows | 0.0415 DTH/sq. ft. | RESFEN V3.1.02 - Baseline window selection #301 vs. program minimum efficiency requirements for Salt Lake City |
| Wall Insulation | 0.0073 DTH/sq. ft. | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |
| Attic Insulation | 0.0067 DTH/sq. ft. | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |
| Floor Insulation | 0.0087 DTH/sq. ft. | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |
| Duct Sealing | 5.700 DTH/system | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |
| Duct Insulation | 8.950 DTH/system | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |
| Low Income Weatherization Program | | |
| High Efficiency Furnace | 14.20 DTH/Unit | ENERGY STAR Furnace Calculator |

MEASURE LIFE

| Residential Appliance Program | | |
|---|-----------------|--|
| Measure | Lifetime | Source |
| Clothes Washer Tier 1 | 14 | "Colorado DSM Market Potential Assessment." Prepared for Xcel Energy by KEMA, Inc. and Quantum Consulting 2006 |
| Clothes Washer Tier 2 | 14 | "Colorado DSM Market Potential Assessment." Prepared for Xcel Energy by KEMA, Inc. and Quantum Consulting 2006 |
| Clothes Dryer | 12 | Gas Deemed Savings Database, Nexant 2004 |
| Standard Water Heater | 15 | GDS Report 2004 |
| Tankless Water Heater | 20 | Pacific Gas & Electric by Davis Energy Group 2004 |
| High Efficiency Furnace | 20 | GDS Report 2004 |
| Commercial Rebate Program | | |
| High Efficiency storage gas water heater | 15 | GDS Report 2004 |
| | 15 | GDS Report 2004 |
| High Efficiency tankless gas water heater | 15 | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High Efficiency Clothes Washer | 10 | Energy Star Commercial Clothes Washer Calculator |
| | 10 | Energy Star Commercial Clothes Washer Calculator |
| | 10 | Energy Star Commercial Clothes Washer Calculator |
| Gas Clothes Dryer | 12 | Nexant Estimate |
| Low Flow Pre-Rinse Spray Valve | 5 | CEE |
| High Efficiency Gas Furnaces | 20 | GDS Report 2004 |
| | 20 | |
| | 20 | |
| Boilers (hot water) | 20 | GDS Report 2004 |
| | 20 | |
| Boilers (steam) | 20 | GDS Report 2004 |
| | 20 | |
| Direct Contact Water Heater | 20 | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High Efficiency Unit Heater | 18 | Natural Gas Efficiency and Conservation Measure Resource Assessment (ETO, 2003) |
| | 18 | Natural Gas Efficiency and Conservation Measure Resource Assessment (ETO, 2003) |
| Infrared Heating System | 17 | GDS Report 2004 |
| Programmable Thermostat | 15 | Energy Star Programmable Thermostat Calculator |
| Boiler Outside Air Reset Control | 20 | Measure life assumed to be same as EMS measure life from "California Statewide Commercial Natural Gas Energy Efficiency Potential Study" (Kema-Xenergy, 2003). |

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| Boiler Tune-up | 2 | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| ENERGY STAR New Homes | | |
| Standard Water Heater | 15 | GDS Report 2004 |
| Tankless Water Heater | 20 | Pacific Gas & Electric by Davis Energy Group 2004 |
| High Efficiency Furnace | 20 | GDS Report 2004 |
| ENERGY STAR Homes | 44 | Rocky Mountain Power Cost Effective Inputs for ENERGY STAR Homes Program 2006 |
| Residential Home Energy Audit and Weatherization Program | | |
| Water Heater Blanket | 10 | DOE Rebuild America Reenergize Energy Efficiency Guidebook |
| Pipe Insulation | 10 | DOE Rebuild America Reenergize Energy Efficiency Guidebook |
| Faucet Aerator | 10 | DOE Rebuild America Reenergize Energy Efficiency Guidebook |
| Low Flow Shower Head | 10 | Nexant 2006 Market Study Report |
| Programmable Thermostat | 15 | Nexant 2006 Market Study Report |
| Windows | 25 | RMP Home Energy Savings Program Filing 2006 |
| Wall Insulation | 45 | RMP Home Energy Savings Program Filing 2006 |
| Attic Insulation | 45 | RMP Home Energy Savings Program Filing 2006 |
| Floor Insulation | 45 | RMP Home Energy Savings Program Filing 2006 |
| Duct Sealing | 20 | RMP Home Energy Savings Program Filing 2006 |
| Duct Insulation | 20 | Based on Duct Sealing Lifecycle |
| Low Income Weatherization Program | | |
| High Efficiency Furnace | 20 | GDS Report 2004 |

INCREMENTAL COST

| Residential Appliance Program | | |
|---|-------------------------|--|
| Measure | Incremental Cost | Source |
| Clothes Washer Tier 1 | \$108.45/Unit | RMP Cost Effective Inputs for Home Energy Savings Program 2006 |
| Clothes Washer Tier 2 | \$130.58/Unit | |
| Clothes Dryer | \$50.00/Unit | Gas Deemed Savings Database, Nexant 2004 |
| Standard Water Heater | \$100.00/Unit | GDS Report 2004 |
| Tankless Water Heater | \$800.00/Unit | Energy Trust of Oregon 2006 |
| High Efficiency Furnace | \$675.00/Unit | Database for Energy Efficient Resources (DEER). California Energy Commission and California Public Utilities Commission 2006 |
| Commercial Rebate Program | | |
| High-efficiency storage gas water heater | \$100.00/Unit | GDS Report 2004 |
| | \$509.00/Unit | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High-efficiency tankless gas water heater | \$318.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| High Efficiency Clothes Washer | \$108.51/Unit | Aligned w/ Res Program |
| | \$131.70/Unit | Aligned w/ Res Program |
| | \$300.00/Unit | Energy Star Commercial Clothes Washer Calculator, confirmed with CEE |
| Gas Clothes Dryer | \$50.00/Unit | Nexant estimate |
| Low Flow Pre-Rinse Spray Valve | \$50.00/Unit | California Urban Water Conservation Council, Rinse & Save Program Evaluation, 2005 |
| High Efficiency Gas Furnaces | \$675.00/Unit | 2004-2005 California DEER Database |
| | \$777.00/Unit | 2004-2005 California DEER Database |
| | \$876.00/Unit | 2004-2005 California DEER Database |
| Boilers (hot water) | \$508.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| | \$1,950.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| Boilers (steam) | \$508.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| | \$1,524.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| Direct Contact Water Heater | \$15,190.00/Unit | PG&E -CUPC 2004-2005 / Single Family Rebate Program |
| High Efficiency Unit Heater | \$550.00/Unit | Analysis of Standard Options for Unit Heaters and Duct Furnaces (PG&E 2004) |
| | \$2,640.00/Unit | Analysis of Standard Options for Unit Heaters and Duct Furnaces (PG&E 2004) |
| Infrared Heating System | \$686.00/Unit | Cost review based upon Vendor Costs (Grainger) |

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|---|------------------|---|
| Programmable Thermostat | \$68.47/Unit | Cost based upon Deemed Customer Cost for RMP's FinAnswer Express Program |
| Boiler Outside Air Reset Control | \$835.00/Unit | 2004-2005 California DEER Database |
| Boiler Tune-up | \$600.00/Unit | CA Statewide Gas Potential Study (Kema-Xenergy, 2003) |
| ENERGY STAR New Homes | | |
| Standard Water Heater | \$100.00/Unit | GDS Report 2004 |
| Tankless Water Heater | \$800.00/Unit | Energy Trust of Oregon 2006. |
| High Efficiency Furnace | \$675.00/Unit | Database for Energy Efficient Resources (DEER). California Energy Commission (CEC) and California Public Utilities Commission (CPUC). 2006. |
| ENERGY STAR Homes | \$1265.99/Unit | RMP Cost Effective Inputs for ENERGY STAR Homes Program |
| Residential Home Energy Audit and Weatherization Program | | |
| Water Heater Blanket | \$14.00/Unit | Nexant 2006 Market Study Report |
| Pipe Insulation | \$4.00/Unit | US Department of Energy's Rebuild America Reenergize Energy Efficiency Guidebook |
| Faucet Aerator | \$3.00/Unit | Niagara Conservation |
| Low Flow Shower Head | \$6.20/Unit | Nexant 2006 Market Study Report |
| Programmable Thermostat | \$39.39/Unit | Nexant 2006 Market Study Report 1 |
| Windows | \$1.30/ sq. ft. | RMP Home Energy Savings Program Filing 1 |
| Wall Insulation | \$0.64/sq. ft. | RMP Home Energy Savings Program Filing 1 |
| Attic Insulation | \$0.51/sq. ft. | RMP Home Energy Savings Program Filing 1 |
| Floor Insulation | \$0.42/sq. ft. | RMP Home Energy Savings Program Filing 1 |
| Duct Sealing | \$310.12/sq. ft. | RMP Home Energy Savings Program Filing 1 |
| Duct Insulation | \$347.27/sq. ft. | Lawrence Berkeley National Laboratory Home Energy Saver (Salt Lake City) |