

B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Building Stock

Seg	Description	Dwellings	Type
1	SF Existing	352,342	Total
2	MF Existing	183,706	Total
3	MH Existing	28,447	Total
4	SF New	9,327	Annual
5	MF New	5,543	Annual
6	MH New	2,332	Annual

Measure Costs

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
1	180	Base Furnace, 80 AFUE, 100 kbtu	home	unit	\$0.00		20	\$0.00	2
1	181	Condensing Furnace, 92 AFUE	home	unit	\$724.00	\$0.00	20	\$724.00	2
1	182	Condensing Furnace, 96 AFUE	home	unit	\$978.00	\$0.00	20	\$978.00	2
1	183	ENERGY STAR Programmable Thermostat	home	unit	\$79.00	\$0.00	12	\$79.00	1
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	home	sq.ft.	\$0.86	\$0.00	30	\$0.86	1
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	home	sq.ft.	\$0.33	\$0.53	30	\$0.86	1
1	186	Floor R-0 to R-19 Insulation-Batts	home	sq.ft.	\$0.80	\$0.00	30	\$0.80	1
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	home	sq.ft.	\$0.96	\$0.00	30	\$0.96	1
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	home	home	\$650.00	\$0.00	10	\$650.00	1
1	189	Duct Testing and Sealing	home	home	\$630.00	\$0.00	20	\$630.00	1

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
1	190	Duct Insulation (.6)	home	unit	\$27.00	\$300.00	30	\$327.00	1
1	191	Furnace Diagnostic Testing, Repair and Maintenance	home	unit	\$123.00	\$0.00	10	\$123.00	1
1	192	Windows (high efficiency / ENERGY STAR+)	home	sq.ft.	\$20.81	\$0.00	30	\$20.81	1
1	193	Addition of Attic and Crawlspace Ventilation	home	home	\$41.00	\$100.00	30	\$141.00	1
1	194	Integrated Space and Water Heating	home	unit	\$2,910.03	\$1,175.90	20	\$4,085.93	1
1	500	Base 40 gal. Water Heating (EF=0.54)	home	unit	\$0.00		15	\$0.00	2
1	501	HE Water Heater (EF=0.63)	home	unit	\$129.00	\$0.00	15	\$129.00	2
1	502	HE Water Heater (EF=0.70)	home	unit	\$194.00	\$0.00	15	\$194.00	2
1	503	Solar Water Heater	home	unit	\$1,800.00	\$1,000.00	15	\$2,800.00	2
1	504	Low-Flow Showerheads	home	unit	\$20.00	\$0.00	10	\$20.00	1
1	505	Hot Water Pipe Insulation	home	unit	\$1.00	\$4.80	10	\$5.80	1
1	506	Water Heater Thermostat Setback	home	unit	\$70.00	\$0.00	10	\$70.00	1
1	507	Tankless Water Heater	home	unit	\$579.00	\$324.00	15	\$903.00	2
1	508	Drain Water Heat Recovery (GFX)	home	unit	\$319.00	\$81.00	15	\$400.00	1
1	600	Base Clotheswasher (EF=1.18)	home	unit	\$0.00		14	\$0.00	2
1	601	Horizontal-Axis Clothes Washer	home	unit	\$374.00	\$0.00	14	\$374.00	2
1	602	Energy Star Vertical-Axis Clothes Washer	home	unit	\$324.00	\$0.00	14	\$324.00	2
1	800	Base Dishwasher (EF=0.46)	home	unit	\$0.00		13	\$0.00	2
1	801	Energy Star DW (EF=0.58)	home	unit	\$204.00	\$0.00	13	\$204.00	2
1	900	Base Conventional Oven	home	unit	\$0.00		15	\$0.00	2
1	901	Convection Oven	home	unit	\$120.00	\$0.00	15	\$120.00	2
2	180	Base Furnace, 80 AFUE,60 kbtu	home	unit	\$0.00		20	\$0.00	2
2	181	Condensing Furnace, 92 AFUE	home	unit	\$635.00	\$0.00	20	\$635.00	2
2	182	Condensing Furnace, 96 AFUE	home	unit	\$787.00	\$0.00	20	\$787.00	2
2	183	ENERGY STAR Programmable Thermostat	home	unit	\$79.00	\$0.00	12	\$79.00	1
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	home	sq.ft.	\$0.86	\$0.00	30	\$0.86	1

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	home	sq.ft.	\$0.33	\$0.53	30	\$0.86	1
2	186	Floor R-0 to R-19 Insulation-Batts	home	sq.ft.	\$0.80	\$0.00	30	\$0.80	1
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	home	sq.ft.	\$0.96	\$0.00	30	\$0.96	1
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	home	home	\$486.00	\$0.00	10	\$486.00	1
2	189	Duct Testing and Sealing	home	home	\$630.00	\$0.00	20	\$630.00	1
2	190	Duct Insulation (.6)	home	unit	\$13.00	\$200.00	30	\$213.00	1
2	191	Furnace Diagnostic Testing, Repair and Maintenance	home	unit	\$123.00	\$0.00	10	\$123.00	1
2	192	Windows (high efficiency / ENERGY STAR+)	home	home	\$20.81	\$0.00	30	\$20.81	1
2	193	Addition of Attic and Crawlspace Ventilation	home	home	\$41.00	\$100.00	30	\$141.00	1
2	194	Integrated Space and Water Heating	home	unit	\$2,910.03	\$1,175.90	20	\$4,085.93	1
2	500	Base 40 gal. Water Heating (EF=0.54)	unit	unit	\$0.00		15	\$0.00	2
2	501	HE Water Heater (EF=0.63)	unit	unit	\$129.00	\$0.00	15	\$129.00	2
2	502	HE Water Heater (EF=0.70)	unit	unit	\$194.00	\$0.00	15	\$194.00	2
2	503	Solar Water Heater	unit	unit	\$1,800.00	\$1,000.00	15	\$2,800.00	2
2	504	Low-Flow Showerheads	home	unit	\$20.00	\$0.00	10	\$20.00	1
2	505	Hot Water Pipe Insulation	unit	unit	\$1.00	\$4.80	15	\$5.80	1
2	506	Water Heater Thermostat Setback	unit	unit	\$70.00	\$0.00	10	\$70.00	1
2	507	Tankless Water Heater	unit	unit	\$579.00	\$324.00	15	\$903.00	2
2	508	Drain Water Heat Recovery (GFX)	unit	unit	\$319.00	\$81.00	15	\$400.00	1
2	550	Base Boiler (AFUE = 80%)	unit	unit	\$0.00		20	\$0.00	2
2	551	High Efficiency Condensing Boiler (AFUE = 90%)	unit	unit	\$734.00	\$0.00	20	\$734.00	2
2	600	Base Clotheswasher (EF=1.18)	unit	unit	\$0.00		14	\$0.00	2
2	601	Horizontal-Axis Clothes Washer	unit	unit	\$374.00	\$0.00	14	\$374.00	2

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
2	602	Energy Star Vertical-Axis Clothes Washer	unit	unit	\$324.00	\$0.00	14	\$324.00	2
2	800	Base Dishwasher (EF=0.46)	unit	unit	\$0.00		13	\$0.00	2
2	801	Energy Star DW (EF=0.58)	unit	unit	\$204.00	\$0.00	13	\$204.00	2
2	900	Base Conventional Oven	unit	unit	\$0.00		15	\$0.00	2
2	901	Convection Oven	unit	unit	\$120.00	\$0.00	15	\$120.00	2
3	180	Base Furnace, 80 AFUE, 80 kbtu	home	unit	\$0.00		20	\$0.00	2
3	181	Condensing Furnace, 92 AFUE	home	unit	\$680.00	\$0.00	20	\$680.00	2
3	182	Condensing Furnace, 96 AFUE	home	unit	\$882.00	\$0.00	20	\$882.00	2
3	183	ENERGY STAR Programmable Thermostat	home	unit	\$79.00	\$0.00	12	\$79.00	1
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	home	sq.ft.	\$0.94	\$0.00	25	\$0.94	1
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	home	sq.ft.	\$0.41	\$0.53	25	\$0.94	1
3	186	Floor R-0 to R-19 Insulation-Batts	home	sq.ft.	\$0.80	\$0.00	25	\$0.80	1
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	home	sq.ft.	\$1.43	\$0.00	25	\$1.43	1
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	home	home	\$100.00	\$0.00	10	\$100.00	1
3	189	Duct Testing and Sealing	home	home	\$630.00	\$0.00	20	\$630.00	1
3	190	Duct Insulation (.6)	home	unit	\$13.00	\$200.00	25	\$213.00	1
3	191	Furnace Diagnostic Testing, Repair and Maintenance	home	unit	\$123.00	\$0.00	10	\$123.00	1
3	192	Windows (high efficiency / ENERGY STAR+)	home	sq.ft.	\$16.01	\$0.00	25	\$16.01	1
3	193	Addition of Attic and Crawlspace Ventilation	home	home	\$41.00	\$100.00	25	\$141.00	1
3	194	Integrated Space and Water Heating	home	unit	\$2,910.03	\$1,175.90	20	\$4,085.93	1
3	500	Base 40 gal. Water Heating (EF=0.54)	unit	unit	\$0.00		15	\$0.00	2
3	501	HE Water Heater (EF=0.63)	unit	unit	\$129.00	\$0.00	15	\$129.00	2
3	502	HE Water Heater (EF=0.70)	unit	unit	\$194.00	\$0.00	15	\$194.00	2
3	503	Solar Water Heater	unit	unit	\$1,800.00	\$1,000.00	15	\$2,800.00	2

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
3	504	Low-Flow Showerheads	home	unit	\$20.00	\$0.00	10	\$20.00	1
3	505	Hot Water Pipe Insulation	unit	unit	\$1.00	\$4.80	15	\$5.80	1
3	506	Water Heater Thermostat Setback	unit	unit	\$70.00	\$0.00	5	\$70.00	1
3	507	Tankless Water Heater	unit	unit	\$579.00	\$324.00	15	\$903.00	2
3	508	Drain Water Heat Recovery (GFX)	unit	unit	\$319.00	\$81.00	15	\$400.00	1
3	600	Base Clotheswasher (EF=1.18)	unit	unit	\$0.00		14	\$0.00	2
3	601	Horizontal-Axis Clothes Washer	unit	unit	\$374.00	\$0.00	14	\$374.00	2
3	602	Energy Star Vertical-Axis Clothes Washer	unit	unit	\$324.00	\$0.00	14	\$324.00	2
3	800	Base Dishwasher (EF=0.46) - Does this belong in gas?	unit	unit	\$0.00		13	\$0.00	2
3	801	Energy Star DW (EF=0.58)	unit	unit	\$204.00	\$0.00	13	\$204.00	2
3	900	Base Conventional Oven	unit	unit	\$0.00		15	\$0.00	2
3	901	Convection Oven	unit	unit	\$120.00	\$0.00	15	\$120.00	2
4	180	Base Furnace, 80 AFUE, 120 kbtu	home	unit	\$0.00		20	\$0.00	2
4	181	Condensing Furnace, 92 AFUE	home	unit	\$731.00	\$0.00	20	\$731.00	2
4	182	Condensing Furnace, 96 AFUE	home	unit	\$1,073.00	\$0.00	20	\$1,073.00	2
4	194	Integrated Space and Water Heating	home	unit	\$2,910.03	\$1,175.90	20	\$4,085.93	1
4	195	ENERGY STAR New Construction	home	unit	\$3,000.00	\$0.00	25	\$3,000.00	1
4	196	ENERGY STAR New Construction Plus	home	unit	\$5,000.00	\$0.00	25	\$5,000.00	1
4	500	Base 40 gal. Water Heating (EF=0.54)	unit	unit	\$0.00		15	\$0.00	2
4	501	HE Water Heater (EF=0.63)	unit	unit	\$129.00	\$0.00	15	\$129.00	2
4	502	HE Water Heater (EF=0.70)	unit	unit	\$194.00	\$0.00	15	\$194.00	2
4	503	Solar Water Heater	unit	unit	\$1,800.00	\$1,000.00	15	\$2,800.00	2
4	507	Tankless Water Heater	unit	unit	\$579.00	\$324.00	15	\$903.00	2
4	508	Drain Water Heat Recovery (GFX)	unit	unit	\$319.00	\$81.00	15	\$400.00	1
4	600	Base Clotheswasher (EF=1.18)	unit	unit	\$0.00		14	\$0.00	2

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
4	601	Horizontal-Axis Clothes Washer	unit	unit	\$374.00	\$0.00	14	\$374.00	2
4	602	Energy Star Vertical-Axis Clothes Washer	unit	unit	\$324.00	\$0.00	14	\$324.00	2
4	800	Base Dishwasher (EF=0.46)	unit	unit	\$0.00		13	\$0.00	2
4	801	Energy Star DW (EF=0.58)	unit	unit	\$204.00	\$0.00	13	\$204.00	2
4	900	Base Conventional Oven	unit	unit	\$0.00		15	\$0.00	2
4	901	Convection Oven	unit	unit	\$120.00	\$0.00	15	\$120.00	2
5	180	Base Furnace, 80 AFUE, 80 kbtu	home	unit	\$0.00		20	\$0.00	2
5	181	Condensing Furnace, 92 AFUE	home	unit	\$680.00	\$0.00	20	\$680.00	2
5	182	Condensing Furnace, 96 AFUE	home	unit	\$882.00	\$0.00	20	\$882.00	2
5	194	Integrated Space and Water Heating	home	unit	\$2,910. 03	\$1,175. 90	20	\$4,085. 93	1
5	195	ENERGY STAR New Construction	home	unit	\$2,000. 00	\$0.00	20	\$2,000. 00	1
5	196	ENERGY STAR New Construction Plus	home	unit	\$3,500. 00	\$0.00	25	\$3,500. 00	1
5	500	Base 40 gal. Water Heating (EF=0.54)	unit	unit	\$0.00		25	\$0.00	2
5	501	HE Water Heater (EF=0.63)	unit	unit	\$129.00	\$0.00	15	\$129.00	2
5	502	HE Water Heater (EF=0.70)	unit	unit	\$194.00	\$0.00	15	\$194.00	2
5	503	Solar Water Heater	unit	unit	\$1,800. 00	\$1,000. 00	15	\$2,800. 00	2
5	507	Tankless Water Heater	unit	unit	\$579.00	\$324.00	15	\$903.00	2
5	508	Drain Water Heat Recovery (GFX)	unit	unit	\$319.00	\$81.00	15	\$400.00	1
5	600	Base Clotheswasher (EF=1.18)	unit	unit	\$0.00		14	\$0.00	2
5	601	Horizontal-Axis Clothes Washer	unit	unit	\$374.00	\$0.00	14	\$374.00	2
5	602	Energy Star Vertical-Axis Clothes Washer	unit	unit	\$324.00	\$0.00	14	\$324.00	2
5	800	Base Dishwasher (EF=0.46)	unit	unit	\$0.00		13	\$0.00	2
5	801	Energy Star DW (EF=0.58)	unit	unit	\$204.00	\$0.00	13	\$204.00	2
5	900	Base Conventional Oven	unit	unit	\$0.00		15	\$0.00	2
5	901	Convection Oven	unit	unit	\$120.00	\$0.00	15	\$120.00	2
6	180	Base Furnace, 80 AFUE, 80 kbtu	home	unit	\$0.00		20	\$0.00	2
6	181	Condensing Furnace, 92 AFUE	home	unit	\$680.00	\$0.00	20	\$680.00	2
6	182	Condensing Furnace, 96 AFUE	home	unit	\$882.00	\$0.00	20	\$882.00	2

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Seg	Measure #	Measure Description	Savings Units	Cost Units	Unit Equip Costs	Labor Cost	Service Life	Full Unit Cost	Implementation Type (1 = Time, 2=ROB)
6	194	Integrated Space and Water Heating	home	unit	\$2,910.03	\$1,175.90	20	\$4,085.93	1
6	195	Natural Choice / ENERGY STAR New Man. Housing	home	unit	\$2,000.00	\$0.00	25	\$2,000.00	1
6	500	Base 40 gal. Water Heating (EF=0.54)	unit	unit	\$0.00		15	\$0.00	2
6	501	HE Water Heater (EF=0.63)	unit	unit	\$129.00	\$0.00	15	\$129.00	2
6	502	HE Water Heater (EF=0.70)	unit	unit	\$194.00	\$0.00	15	\$194.00	2
6	503	Solar Water Heater	unit	unit	\$1,800.00	\$1,000.00	15	\$2,800.00	2
6	507	Tankless Water Heater	unit	unit	\$579.00	\$324.00	15	\$903.00	2
6	508	Drain Water Heat Recovery (GFX)	unit	unit	\$319.00	\$81.00	15	\$400.00	1
6	600	Base Clotheswasher (EF=1.18)	unit	unit	\$0.00		14	\$0.00	2
6	601	Horizontal-Axis Clothes Washer	unit	unit	\$374.00	\$0.00	14	\$374.00	2
6	602	Energy Star Vertical-Axis Clothes Washer	unit	unit	\$324.00	\$0.00	14	\$324.00	2
6	800	Base Dishwasher (EF=0.46)	unit	unit	\$0.00		13	\$0.00	2
6	801	Energy Star DW (EF=0.58)	unit	unit	\$204.00	\$0.00	13	\$204.00	2
6	900	Base Conventional Oven	unit	unit	\$0.00		15	\$0.00	2
6	901	Convection Oven	unit	unit	\$120.00	\$0.00	15	\$120.00	2

Applicability Factor (Percent)

Seg	Measure #	Measure Description	Applicability Factor
1	180	Base Furnace, 80 AFUE, 80 kbtu	88.2%
1	181	Condensing Furnace, 92 AFUE	88.2%
1	182	Condensing Furnace, 96 AFUE	88.2%
1	183	ENERGY STAR Programmable Thermostat	88.2%
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	88.2%
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	88.2%
1	186	Floor R-0 to R-19 Insulation-Batts	88.2%

Seg	Measure #	Measure Description	Applicability Factor
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	88.2%
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	88.2%
1	189	Duct Repair and Sealing	88.2%
1	190	Duct Insulation (.6)	88.2%
1	191	Furnace Diagnostic Testing, Repair and Maintenance	88.2%
1	192	Windows (high efficiency / ENERGY STAR+)	88.2%
1	193	Addition of Attic and Crawlspace Ventilation	88.2%
1	194	Integrated Space and Water Heating	88.2%
1	500	Base 40 gal. Water Heating (EF=0.54)	76.4%
1	501	HE Water Heater (EF=0.63)	76.4%
1	502	HE Water Heater (EF=0.70)	76.4%
1	503	Solar Water Heater	76.4%
1	504	Low-Flow Showerheads	76.4%
1	505	Hot Water Pipe Insulation	76.4%
1	506	Water Heater Thermostat Setback	76.4%
1	507	Tankless Water Heater	76.4%
1	508	Drain Water Heat Recovery (GFX)	76.4%
1	600	Base Clotheswasher (EF=1.18)	76.4%
1	601	Energy Star CW (EF=2.5)	76.4%
1	602	SEHA CW Tier 2 (EF=3.25)	76.4%
1	800	Base Dishwasher (EF=0.46)	76.4%
1	801	Energy Star DW (EF=0.58)	76.4%
1	900	Conventional Oven	97.3%
1	901	Convection Oven	97.3%
2	180	Base Furnace, 80 AFUE, 80 kbtu	68.0%
2	181	Condensing Furnace, 92 AFUE	68.0%
2	182	Condensing Furnace, 96 AFUE	68.0%
2	183	ENERGY STAR Programmable Thermostat	68.0%
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	68.0%

Seg	Measure #	Measure Description	Applicability Factor
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	68.0%
2	186	Floor R-0 to R-19 Insulation-Batts	68.0%
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	68.0%
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	68.0%
2	189	Duct Repair and Sealing	68.0%
2	190	Duct Insulation (.6)	68.0%
2	191	Furnace Diagnostic Testing, Repair and Maintenance	68.0%
2	192	Windows (high efficiency / ENERGY STAR+)	68.0%
2	193	Addition of Attic and Crawlspace Ventilation	68.0%
2	194	Integrated Space and Water Heating	68.0%
2	500	Base 40 gal. Water Heating (EF=0.54)	76.5%
2	501	HE Water Heater (EF=0.63)	76.5%
2	502	HE Water Heater (EF=0.70)	76.5%
2	503	Solar Water Heater	76.5%
2	504	Low-Flow Showerheads	76.5%
2	505	Hot Water Pipe Insulation	76.5%
2	506	Water Heater Thermosat Setback	76.5%
2	507	Tankless Water Heater	76.5%
2	508	Drain Water Heat Recovery (GFX)	76.5%
2	550	Base Boiler	68.0%
2	551	High Efficiency Condensing Boiler	68.0%
2	600	Base Clotheswasher (EF=1.18)	76.5%
2	601	Energy Star CW (EF=2.5)	76.5%
2	602	SEHA CW Tier 2 (EF=3.25)	76.5%
2	800	Base Dishwasher (EF=0.46)	76.5%
2	801	Energy Star DW (EF=0.58)	76.5%
2	900	Conventional Oven	99.3%
2	901	Convection Oven	99.3%
3	180	Base Furnace, 80 AFUE, 80 kbtu	93.8%
3	181	Condensing Furnace, 92 AFUE	93.8%

Seg	Measure #	Measure Description	Applicability Factor
3	182	Condensing Furnace, 96 AFUE	93.8%
3	183	ENERGY STAR Programmable Thermostat	93.8%
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	93.8%
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	93.8%
3	186	Floor R-0 to R-19 Insulation-Batts	93.8%
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	93.8%
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	93.8%
3	189	Duct Repair and Sealing	93.8%
3	190	Duct Insulation (.6)	93.8%
3	191	Furnace Diagnostic Testing, Repair and Maintenance	93.8%
3	192	Windows (high efficiency / ENERGY STAR+)	93.8%
3	193	Addition of Attic and Crawlspace Ventilation	93.8%
3	194	Integrated Space and Water Heating	93.8%
3	500	Base 40 gal. Water Heating (EF=0.54)	71.9%
3	501	HE Water Heater (EF=0.63)	71.9%
3	502	HE Water Heater (EF=0.70)	71.9%
3	503	Solar Water Heater	71.9%
3	504	Low-Flow Showerheads	71.9%
3	505	Hot Water Pipe Insulation	71.9%
3	506	Water Heater Thermostat Setback	71.9%
3	507	Tankless Water Heater	71.9%
3	508	Drain Water Heat Recovery (GFX)	71.9%
3	600	Base Clotheswasher (EF=1.18)	71.9%
3	601	Energy Star CW (EF=2.5)	71.9%
3	602	SEHA CW Tier 2 (EF=3.25)	71.9%
3	800	Base Dishwasher (EF=0.46)	71.9%
3	801	Energy Star DW (EF=0.58)	71.9%
3	900	Conventional Oven	97.1%

Seg	Measure #	Measure Description	Applicability Factor
3	901	Convection Oven	97.1%
4	180	Base Furnace, 80 AFUE, 80 kbtu	93.2%
4	181	Condensing Furnace, 92 AFUE	93.2%
4	182	Condensing Furnace, 96 AFUE	93.2%
4	194	Integrated Space and Water Heating	93.2%
4	195	ENERGY STAR New Construction	93.2%
4	196	ENERGY STAR New Construction Plus	93.2%
4	500	Base 40 gal. Water Heating (EF=0.54)	94.8%
4	501	HE Water Heater (EF=0.63)	94.8%
4	502	HE Water Heater (EF=0.70)	94.8%
4	503	Solar Water Heater	94.8%
4	507	Tankless Water Heater	94.8%
4	508	Drain Water Heat Recovery (GFX)	94.8%
4	600	Base Clotheswasher (EF=1.18)	94.8%
4	601	Energy Star CW (EF=2.5)	94.8%
4	602	SEHA CW Tier 2 (EF=3.25)	94.8%
4	800	Base Dishwasher (EF=0.46)	94.8%
4	801	Energy Star DW (EF=0.58)	94.8%
4	900	Conventional Oven	98.8%
4	901	Convection Oven	98.8%
5	180	Base Furnace, 80 AFUE, 80 kbtu	68.0%
5	181	Condensing Furnace, 92 AFUE	68.0%
5	182	Condensing Furnace, 96 AFUE	68.0%
5	194	Integrated Space and Water Heating	68.0%
5	195	ENERGY STAR New Construction	68.0%
5	196	ENERGY STAR New Construction Plus	68.0%
5	500	Base 40 gal. Water Heating (EF=0.54)	76.5%
5	501	HE Water Heater (EF=0.63)	76.5%
5	502	HE Water Heater (EF=0.70)	76.5%
5	503	Solar Water Heater	76.5%
5	507	Tankless Water Heater	76.5%
5	508	Drain Water Heat Recovery (GFX)	76.5%

Seg	Measure #	Measure Description	Applicability Factor
5	600	Base Clotheswasher (EF=1.18)	76.5%
5	601	Energy Star CW (EF=2.5)	76.5%
5	602	SEHA CW Tier 2 (EF=3.25)	76.5%
5	800	Base Dishwasher (EF=0.46)	76.5%
5	801	Energy Star DW (EF=0.58)	76.5%
5	900	Conventional Oven	99.3%
5	901	Convection Oven	99.3%
6	180	Base Furnace, 80 AFUE, 80 kbtu	93.8%
6	181	Condensing Furnace, 92 AFUE	93.8%
6	182	Condensing Furnace, 96 AFUE	93.8%
6	194	Integrated Space and Water Heating	93.8%
6	195	Natural Choice / ENERGY STAR New Man. Housing	93.8%
6	500	Base 40 gal. Water Heating (EF=0.54)	71.9%
6	501	HE Water Heater (EF=0.63)	71.9%
6	502	HE Water Heater (EF=0.70)	71.9%
6	503	Solar Water Heater	71.9%
6	507	Tankless Water Heater	71.9%
6	508	Drain Water Heat Recovery (GFX)	71.9%
6	600	Base Clotheswasher (EF=1.18)	71.9%
6	601	Energy Star CW (EF=2.5)	71.9%
6	602	SEHA CW Tier 2 (EF=3.25)	71.9%
6	800	Base Dishwasher (EF=0.46)	71.9%
6	801	Energy Star DW (EF=0.58)	71.9%
6	900	Conventional Oven	97.1%
6	901	Convection Oven	97.1%

Base Technology EUIs

Seg	Measure #	Measure Description	Therms/Year
1	180	Base Furnace, 80 AFUE, 80 kbtu	779
1	500	Base 40 gal. Water Heating (EF=0.54)	282
1	600	Base Clotheswasher (EF=1.18)	40
1	800	Base Dishwasher (EF=0.46)	24

Seg	Measure #	Measure Description	Therms/Year
1	900	Conventional Oven	50
2	180	Base Furnace, 80 AFUE, 80 kbtu	522
2	500	Base 40 gal. Water Heating (EF=0.54)	189
2	550	Base Boiler	711
2	600	Base Clotheswasher (EF=1.18)	27
2	800	Base Dishwasher (EF=0.46)	16
2	900	Conventional Oven	34
3	180	Base Furnace, 80 AFUE, 80 kbtu	701
3	500	Base 40 gal. Water Heating (EF=0.54)	254
3	600	Base Clotheswasher (EF=1.18)	28
3	700	Base Clothes Dryer (EF=.46)	36
3	800	Base Dishwasher (EF=0.46)	22
3	900	Conventional Oven	45
4	180	Base Furnace, 80 AFUE, 80 kbtu	690
4	500	Base 40 gal. Water Heating (EF=0.58)	323
4	600	Base Clotheswasher (EF=1.18)	46
4	800	Base Dishwasher (EF=0.46)	28
4	900	Conventional Oven	50
5	180	Base Furnace, 80 AFUE, 80 kbtu	463
5	500	Base 40 gal. Water Heating (EF=0.58)	216
5	600	Base Clotheswasher (EF=1.18)	31
5	800	Base Dishwasher (EF=0.46)	18
5	900	Conventional Oven	34
6	180	Base Furnace, 80 AFUE, 80 kbtu	621
6	500	Base 40 gal. Water Heating (EF=0.58)	291
6	600	Base Clotheswasher (EF=1.18)	41
6	800	Base Dishwasher (EF=0.46)	25
6	900	Conventional Oven	45

Energy Savings (Percent)

Seg	Measure #	Measure Description	Annual % Savings
1	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
1	181	Condensing Furnace, 92 AFUE	13.0%
1	182	Condensing Furnace, 96 AFUE	16.7%
1	183	ENERGY STAR Programmable Thermostat	6.0%
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	24.3%
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	8.4%
1	186	Floor R-0 to R-19 Insulation-Batts	5.6%
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	17.6%
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	6.3%
1	189	Duct Repair and Sealing	10.0%
1	190	Duct Insulation (.6)	3.9%
1	191	Furnace Diagnostic Testing, Repair and Maintenance	17.7%
1	192	Windows (high efficiency / ENERGY STAR+)	7.0%
1	193	Addition of Attic and Crawlspace Ventilation	10.0%
1	194	Integrated Space and Water Heating	17.4%
1	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
1	501	HE Water Heater (EF=0.63)	14.3%
1	502	HE Water Heater (EF=0.70)	22.9%
1	503	Solar Water Heater	90.0%
1	504	Low-Flow Showerheads	10.6%
1	505	Hot Water Pipe Insulation	4.6%
1	506	Water Heater Thermostat Setback	4.3%
1	507	Tankless Water Heater (EF=0.82)	34.1%
1	508	Drain Water Heat Recovery (GFX)	37.6%
1	600	Base Clotheswasher (EF=1.18)	0.0%
1	601	Energy Star CW (EF=2.5)	52.8%
1	602	SEHA CW Tier 2 (EF=3.25)	63.7%
1	800	Base Dishwasher (EF=0.46)	0.0%
1	801	Energy Star DW (EF=0.58)	20.7%

Seg	Measure #	Measure Description	Annual % Savings
1	900	Conventional Oven	
1	901	Convection Oven	15.9%
2	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
2	181	Condensing Furnace, 92 AFUE	13.0%
2	182	Condensing Furnace, 96 AFUE	16.7%
2	183	ENERGY STAR Programmable Thermostat	6.0%
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	14.2%
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	2.2%
2	186	Floor R-0 to R-19 Insulation-Batts	8.8%
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	23.1%
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	14.4%
2	189	Duct Repair and Sealing	0.3%
2	190	Duct Insulation (.6)	0.0%
2	191	Furnace Diagnostic Testing, Repair and Maintenance	3.4%
2	192	Windows (high efficiency / ENERGY STAR+)	10.9%
2	193	Addition of Attic and Crawlspace Ventilation	4.4%
2	194	Integrated Space and Water Heating	13.8%
2	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
2	501	HE Water Heater (EF=0.63)	14.3%
2	502	HE Water Heater (EF=0.70)	22.9%
2	503	Solar Water Heater	90.0%
2	504	Low-Flow Showerheads	10.6%
2	505	Hot Water Pipe Insulation	4.8%
2	506	Water Heater Thermostat Setback	4.3%
2	507	Tankless Water Heater (EF=0.82)	34.1%
2	508	Drain Water Heat Recovery (GFX)	39.7%
2	550	Base Boiler (AFUE = 78%)	0.0%
2	551	High Efficiency Condensing Boiler (AFUE = 90%)	13.3%
2	600	Base Clotheswasher (EF=1.18)	0.0%

Seg	Measure #	Measure Description	Annual % Savings
2	601	Energy Star CW (EF=2.5)	52.8%
2	602	SEHA CW Tier 2 (EF=3.25)	63.7%
2	800	Base Dishwasher (EF=0.46)	0.0%
2	801	Energy Star DW (EF=0.58)	20.7%
2	900	Conventional Oven	
2	901	Convection Oven	50.0%
3	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
3	181	Condensing Furnace, 92 AFUE	13.0%
3	182	Condensing Furnace, 96 AFUE	16.7%
3	183	ENERGY STAR Programmable Thermostat	6.0%
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	10.3%
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	7.3%
3	186	Floor R-0 to R-19 Insulation-Batts	12.9%
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	5.20%
3	189	Duct Repair and Sealing	
3	190	Duct Insulation (.6)	3.1%
3	191	Furnace Diagnostic Testing, Repair and Maintenance	11.8%
3	192	Windows (high efficiency / ENERGY STAR+)	24.8%
3	193	Addition of Attic and Crawlspacve Ventilation	10.0%
3	194	Integrated Space and Water Heating	36.5%
3	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
3	501	HE Water Heater (EF=0.63)	14.3%
3	502	HE Water Heater (EF=0.70)	22.9%
3	503	Solar Water Heater	90.0%
3	504	Low-Flow Showerheads	10.6%
3	505	Hot Water Pipe Insulation	4.3%
3	506	Water Heater Thermostat Setback	4.3%
3	507	Tankless Water Heater (EF=0.82)	34.1%
3	508	Drain Water Heat Recovery (GFX)	35.8%

Seg	Measure #	Measure Description	Annual % Savings
3	600	Base Clotheswasher (EF=1.18)	0.0%
3	601	Energy Star CW (EF=2.5)	52.8%
3	602	SEHA CW Tier 2 (EF=3.25)	63.7%
3	800	Base Dishwasher (EF=0.46)	0.0%
3	801	Energy Star DW (EF=0.58)	20.7%
3	900	Conventional Oven	
3	901	Convection Oven	17.8%
4	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
4	181	Condensing Furnace, 92 AFUE	13.0%
4	182	Condensing Furnace, 96 AFUE	16.7%
4	194	Integrated Space and Water Heating	24.5%
4	195	ENERGY STAR New Construction	30.0%
4	196	ENERGY STAR New Construction Plus	40.0%
4	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
4	501	HE Water Heater (EF=0.63)	14.3%
4	502	HE Water Heater (EF=0.70)	22.9%
4	503	Solar Water Heater	90.0%
4	507	Tankless Water Heater (EF=0.82)	34.1%
4	508	Drain Water Heat Recovery (GFX)	31.3%
4	600	Base Clotheswasher (EF=1.18)	0.0%
4	601	Energy Star CW (EF=2.5)	52.8%
4	602	SEHA CW Tier 2 (EF=3.25)	63.7%
4	800	Base Dishwasher (EF=0.46)	0.0%
4	801	Energy Star DW (EF=0.58)	20.7%
4	900	Conventional Oven	
4	901	Convection Oven	17.9%
5	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
5	181	Condensing Furnace, 92 AFUE	13.0%
5	182	Condensing Furnace, 96 AFUE	16.7%
5	194	Integrated Space and Water Heating	8.2%
5	195	ENERGY STAR New Construction	30.0%
5	196	ENERGY STAR New Construction Plus	40.0%
5	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
5	501	HE Water Heater (EF=0.63)	14.3%

Seg	Measure #	Measure Description	Annual % Savings
5	502	HE Water Heater (EF=0.70)	22.9%
5	503	Solar Water Heater	90.0%
5	507	Tankless Water Heater (EF=0.82)	34.1%
5	508	Drain Water Heat Recovery (GFX)	33.3%
5	600	Base Clotheswasher (EF=1.18)	0.0%
5	601	Energy Star CW (EF=2.5)	52.8%
5	602	SEHA CW Tier 2 (EF=3.25)	63.7%
5	800	Base Dishwasher (EF=0.46)	0.0%
5	801	Energy Star DW (EF=0.58)	20.7%
5	900	Conventional Oven	
5	901	Convection Oven	52.9%
6	180	Base Furnace, 80 AFUE, 80 kbtu	0.0%
6	181	Condensing Furnace, 92 AFUE	13.0%
6	182	Condensing Furnace, 96 AFUE	16.7%
6	194	Integrated Space and Water Heating	16.6%
6	195	Natural Choice / ENERGY STAR New Man. Housing	30.0%
6	500	Base 40 gal. Water Heating (EF=0.54)	0.0%
6	501	HE Water Heater (EF=0.63)	14.3%
6	502	HE Water Heater (EF=0.70)	22.9%
6	503	Solar Water Heater	90.0%
6	507	Tankless Water Heater (EF=0.82)	34.1%
6	508	Drain Water Heat Recovery (GFX)	29.9%
6	600	Base Clotheswasher (EF=1.18)	0.0%
6	601	Energy Star CW (EF=2.5)	52.8%
6	602	SEHA CW Tier 2 (EF=3.25)	63.7%
6	800	Base Dishwasher (EF=0.46)	0.0%
6	801	Energy Star DW (EF=0.58)	20.7%
6	900	Conventional Oven	
6	901	Convection Oven	17.8%

Standards Adjustment Factor (Percent)

Seg	Measure #	Measure Description	EUI Adjust
1	180	Base Furnace, 80 AFUE, 80 kbtu	87.5%
1	181	Condensing Furnace, 92 AFUE	87.5%
1	182	Condensing Furnace, 96 AFUE	87.5%
1	183	ENERGY STAR Programmable Thermostat	100.0%
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	100.0%
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	100.0%
1	186	Floor R-0 to R-19 Insulation-Batts	100.0%
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	100.0%
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%
1	189	Duct Repair and Sealing	100.0%
1	190	Duct Insulation (.6)	100.0%
1	191	Furnace Diagnostic Testing, Repair and Maintenance	100.0%
1	192	Windows (high efficiency / ENERGY STAR+)	100.0%
1	193	Addition of Attic and Crawlspace Ventilation	100.0%
1	194	Integrated Space and Water Heating	100.0%
1	500	Base 40 gal. Water Heating (EF=0.54)	94.4%
1	501	HE Water Heater (EF=0.63)	94.4%
1	502	HE Water Heater (EF=0.70)	94.4%
1	503	Solar Water Heater	94.4%
1	504	Low-Flow Showerheads	100.0%
1	505	Hot Water Pipe Insulation	100.0%
1	506	Water Heater Thermostat Setback	100.0%
1	507	Tankless Water Heater	100.0%
1	508	Drain Water Heat Recovery (GFX)	100.0%
1	600	Base Clotheswasher (EF=1.18)	100.0%
1	601	Energy Star CW (EF=2.5)	100.0%
1	602	SEHA CW Tier 2 (EF=3.25)	100.0%
1	800	Base Dishwasher (EF=0.46)	100.0%
1	801	Energy Star DW (EF=0.58)	100.0%

Seg	Measure #	Measure Description	EUI Adjust
1	900	Conventional Oven	100.0%
1	901	Convection Oven	100.0%
2	180	Base Furnace, 80 AFUE, 80 kbtu	91.6%
2	181	Condensing Furnace, 92 AFUE	91.6%
2	182	Condensing Furnace, 96 AFUE	91.6%
2	183	ENERGY STAR Programmable Thermostat	100.0%
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	100.0%
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	100.0%
2	186	Floor R-0 to R-19 Insulation-Batts	100.0%
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	100.0%
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%
2	189	Duct Repair and Sealing	100.0%
2	190	Duct Insulation (.6)	100.0%
2	191	Furnace Diagnostic Testing, Repair and Maintenance	100.0%
2	192	Windows (high efficiency / ENERGY STAR+)	100.0%
2	193	Addition of Attic and Crawlspace Ventilation	100.0%
2	194	Integrated Space and Water Heating	100.0%
2	500	Base 40 gal. Water Heating (EF=0.54)	94.4%
2	501	HE Water Heater (EF=0.63)	94.4%
2	502	HE Water Heater (EF=0.70)	94.4%
2	503	Solar Water Heater	94.4%
2	504	Low-Flow Showerheads	100.0%
2	505	Hot Water Pipe Insulation	100.0%
2	506	Water Heater Thermosat Setback	100.0%
2	507	Tankless Water Heater	100.0%
2	508	Drain Water Heat Recovery (GFX)	100.0%
2	550	Base Boiler	89.7%
2	551	High Efficiency Condensing Boiler	89.7%
2	600	Base Clotheswasher (EF=1.18)	100.0%
2	601	Energy Star CW (EF=2.5)	100.0%

Seg	Measure #	Measure Description	EUI Adjust
2	602	SEHA CW Tier 2 (EF=3.25)	100.0%
2	800	Base Dishwasher (EF=0.46)	100.0%
2	801	Energy Star DW (EF=0.58)	100.0%
2	900	Conventional Oven	100.0%
2	901	Convection Oven	100.0%
3	180	Base Furnace, 80 AFUE, 80 kbtu	87.5%
3	181	Condensing Furnace, 92 AFUE	87.5%
3	182	Condensing Furnace, 96 AFUE	87.5%
3	183	ENERGY STAR Programmable Thermostat	100.0%
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	100.0%
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	100.0%
3	186	Floor R-0 to R-19 Insulation-Batts	100.0%
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	100.0%
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	100.0%
3	189	Duct Repair and Sealing	100.0%
3	190	Duct Insulation (.6)	100.0%
3	191	Furnace Diagnostic Testing, Repair and Maintenance	100.0%
3	192	Windows (high efficiency / ENERGY STAR+)	100.0%
3	193	Addition of Attic and Crawlspace Ventilation	100.0%
3	194	Integrated Space and Water Heating	100.0%
3	500	Base 40 gal. Water Heating (EF=0.54)	84.9%
3	501	HE Water Heater (EF=0.63)	84.9%
3	502	HE Water Heater (EF=0.70)	84.9%
3	503	Solar Water Heater	84.9%
3	504	Low-Flow Showerheads	100.0%
3	505	Hot Water Pipe Insulation	100.0%
3	506	Water Heater Thermosat Setback	100.0%
3	507	Tankless Water Heater	100.0%
3	508	Drain Water Heat Recovery (GFX)	100.0%
3	600	Base Clotheswasher (EF=1.18)	100.0%

Seg	Measure #	Measure Description	EUI Adjust
3	601	Energy Star CW (EF=2.5)	100.0%
3	602	SEHA CW Tier 2 (EF=3.25)	100.0%
3	800	Base Dishwasher (EF=0.46)	100.0%
3	801	Energy Star DW (EF=0.58)	100.0%
3	900	Conventional Oven	100.0%
3	901	Convection Oven	100.0%
4	180	Base Furnace, 80 AFUE, 80 kbtu	100.0%
4	181	Condensing Furnace, 92 AFUE	100.0%
4	182	Condensing Furnace, 96 AFUE	100.0%
4	194	Integrated Space and Water Heating	100.0%
4	195	ENERGY STAR New Construction	100.0%
4	196	ENERGY STAR New Construction Plus	100.0%
4	500	Base 40 gal. Water Heating (EF=0.54)	100.0%
4	501	HE Water Heater (EF=0.63)	100.0%
4	502	HE Water Heater (EF=0.70)	100.0%
4	503	Solar Water Heater	100.0%
4	507	Tankless Water Heater	100.0%
4	508	Drain Water Heat Recovery (GFX)	100.0%
4	600	Base Clotheswasher (EF=1.18)	100.0%
4	601	Energy Star CW (EF=2.5)	100.0%
4	602	SEHA CW Tier 2 (EF=3.25)	100.0%
4	800	Base Dishwasher (EF=0.46)	100.0%
4	801	Energy Star DW (EF=0.58)	100.0%
4	900	Conventional Oven	100.0%
4	901	Convection Oven	100.0%
5	180	Base Furnace, 80 AFUE, 80 kbtu	100.0%
5	181	Condensing Furnace, 92 AFUE	100.0%
5	182	Condensing Furnace, 96 AFUE	100.0%
5	194	Integrated Space and Water Heating	100.0%
5	195	ENERGY STAR New Construction	100.0%
5	196	ENERGY STAR New Construction Plus	100.0%
5	500	Base 40 gal. Water Heating (EF=0.54)	100.0%
5	501	HE Water Heater (EF=0.63)	100.0%
5	502	HE Water Heater (EF=0.70)	100.0%

Seg	Measure #	Measure Description	EUI Adjust
5	503	Solar Water Heater	100.0%
5	507	Tankless Water Heater	100.0%
5	508	Drain Water Heat Recovery (GFX)	100.0%
5	600	Base Clotheswasher (EF=1.18)	100.0%
5	601	Energy Star CW (EF=2.5)	100.0%
5	602	SEHA CW Tier 2 (EF=3.25)	100.0%
5	800	Base Dishwasher (EF=0.46)	100.0%
5	801	Energy Star DW (EF=0.58)	100.0%
5	900	Conventional Oven	100.0%
5	901	Convection Oven	100.0%
6	180	Base Furnace, 80 AFUE, 80 kbtu	100.0%
6	181	Condensing Furnace, 92 AFUE	100.0%
6	182	Condensing Furnace, 96 AFUE	100.0%
6	194	Integrated Space and Water Heating	100.0%
6	195	Natural Choice / ENERGY STAR New Man. Housing	100.0%
6	500	Base 40 gal. Water Heating (EF=0.54)	100.0%
6	501	HE Water Heater (EF=0.63)	100.0%
6	502	HE Water Heater (EF=0.70)	100.0%
6	503	Solar Water Heater	100.0%
6	507	Tankless Water Heater	100.0%
6	508	Drain Water Heat Recovery (GFX)	100.0%
6	600	Base Clotheswasher (EF=1.18)	100.0%
6	601	Energy Star CW (EF=2.5)	100.0%
6	602	SEHA CW Tier 2 (EF=3.25)	100.0%
6	800	Base Dishwasher (EF=0.46)	100.0%
6	801	Energy Star DW (EF=0.58)	100.0%
6	900	Conventional Oven	100.0%
6	901	Convection Oven	100.0%

Feasibility Factor(Percent)

Seg	Measure #	Measure Description	Feasibility Factor
1	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
1	181	Condensing Furnace, 92 AFUE	0.40
1	182	Condensing Furnace, 96 AFUE	0.40
1	183	ENERGY STAR Programmable Thermostat	0.80
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	0.67
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.33
1	186	Floor R-0 to R-19 Insulation-Batts	0.33
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	0.50
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.90
1	189	Duct Repair and Sealing	0.50
1	190	Duct Insulation (.6)	0.50
1	191	Furnace Diagnostic Testing, Repair and Maintenance	1.00
1	192	Windows (high efficiency / ENERGY STAR+)	0.75
1	193	Addition of Attic and Crawlspace Ventilation	0.50
1	194	Integrated Space and Water Heating	0.10
1	500	Base 40 gal. Water Heating (EF=0.54)	1.00
1	501	HE Water Heater (EF=0.63)	0.45
1	502	HE Water Heater (EF=0.70)	0.45
1	503	Solar Water Heater	0.33
1	504	Low-Flow Showerheads	0.95
1	505	Hot Water Pipe Insulation	0.75
1	506	Water Heater Thermostat Setback	1.00
1	507	Tankless Water Heater	0.25
1	508	Drain Water Heat Recovery (GFX)	0.25
1	600	Base Clotheswasher (EF=1.18)	1.00
1	601	Energy Star CW (EF=2.5)	1.00
1	602	SEHA CW Tier 2 (EF=3.25)	1.00
1	800	Base Dishwasher (EF=0.46)	1.00
1	801	Energy Star DW (EF=0.58)	1.00

Seg	Measure #	Measure Description	Feasibility Factor
1	900	Conventional Oven	1.00
1	901	Convection Oven	1.00
2	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
2	181	Condensing Furnace, 92 AFUE	0.40
2	182	Condensing Furnace, 96 AFUE	0.40
2	183	ENERGY STAR Programmable Thermostat	0.80
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	0.67
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.33
2	186	Floor R-0 to R-19 Insulation-Batts	0.33
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	0.50
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.90
2	189	Duct Repair and Sealing	0.50
2	190	Duct Insulation (.6)	0.50
2	191	Furnace Diagnostic Testing, Repair and Maintenance	1.00
2	192	Windows (high efficiency / ENERGY STAR+)	0.75
2	193	Addition of Attic and Crawlspace Ventilation	0.50
2	194	Integrated Space and Water Heating	0.10
2	500	Base 40 gal. Water Heating (EF=0.54)	1.00
2	501	HE Water Heater (EF=0.63)	0.45
2	502	HE Water Heater (EF=0.70)	0.45
2	503	Solar Water Heater	0.33
2	504	Low-Flow Showerheads	0.95
2	505	Hot Water Pipe Insulation	0.75
2	506	Water Heater Thermostat Setback	1.00
2	507	Tankless Water Heater	0.25
2	508	Drain Water Heat Recovery (GFX)	0.25
2	550	Base Boiler	1.00
2	551	High Efficiency Condensing Boiler	0.50
2	600	Base Clotheswasher (EF=1.18)	1.00
2	601	Energy Star CW (EF=2.5)	1.00

Seg	Measure #	Measure Description	Feasibility Factor
2	602	SEHA CW Tier 2 (EF=3.25)	1.00
2	800	Base Dishwasher (EF=0.46)	1.00
2	801	Energy Star DW (EF=0.58)	1.00
2	900	Conventional Oven	1.00
2	901	Convection Oven	1.00
3	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
3	181	Condensing Furnace, 92 AFUE	0.40
3	182	Condensing Furnace, 96 AFUE	0.40
3	183	ENERGY STAR Programmable Thermostat	0.80
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	0.67
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.33
3	186	Floor R-0 to R-19 Insulation-Batts	0.33
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	0.50
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.90
3	189	Duct Repair and Sealing	0.50
3	190	Duct Insulation (.6)	0.50
3	191	Furnace Diagnostic Testing, Repair and Maintenance	1.00
3	192	Windows (high efficiency / ENERGY STAR+)	0.75
3	193	Addition of Attic and Crawlspace Ventilation	0.50
3	194	Integrated Space and Water Heating	0.10
3	500	Base 40 gal. Water Heating (EF=0.54)	1.00
3	501	HE Water Heater (EF=0.63)	0.45
3	502	HE Water Heater (EF=0.70)	0.45
3	503	Solar Water Heater	0.33
3	504	Low-Flow Showerheads	0.95
3	505	Hot Water Pipe Insulation	0.75
3	506	Water Heater Thermostat Setback	1.00
3	507	Tankless Water Heater	0.25
3	508	Drain Water Heat Recovery (GFX)	0.25
3	600	Base Clotheswasher (EF=1.18)	1.00

Seg	Measure #	Measure Description	Feasibility Factor
3	601	Energy Star CW (EF=2.5)	1.00
3	602	SEHA CW Tier 2 (EF=3.25)	1.00
3	800	Base Dishwasher (EF=0.46)	1.00
3	801	Energy Star DW (EF=0.58)	1.00
3	900	Conventional Oven	1.00
3	901	Convection Oven	1.00
4	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
4	181	Condensing Furnace, 92 AFUE	0.40
4	182	Condensing Furnace, 96 AFUE	0.40
4	194	Integrated Space and Water Heating	0.20
4	195	ENERGY STAR New Construction	1.00
4	196	ENERGY STAR New Construction Plus	1.00
4	500	Base 40 gal. Water Heating (EF=0.54)	1.00
4	501	HE Water Heater (EF=0.63)	0.40
4	502	HE Water Heater (EF=0.70)	0.40
4	503	Solar Water Heater	0.25
4	507	Tankless Water Heater	0.50
4	508	Drain Water Heat Recovery (GFX)	0.50
4	600	Base Clotheswasher (EF=1.18)	1.00
4	601	Energy Star CW (EF=2.5)	1.00
4	602	SEHA CW Tier 2 (EF=3.25)	1.00
4	800	Base Dishwasher (EF=0.46)	1.00
4	801	Energy Star DW (EF=0.58)	1.00
4	900	Conventional Oven	1.00
4	901	Convection Oven	1.00
5	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
5	181	Condensing Furnace, 92 AFUE	0.40
5	182	Condensing Furnace, 96 AFUE	0.40
5	194	Integrated Space and Water Heating	0.20
5	195	ENERGY STAR New Construction	1.00
5	196	ENERGY STAR New Construction Plus	1.00
5	500	Base 40 gal. Water Heating (EF=0.54)	1.00
5	501	HE Water Heater (EF=0.63)	0.40
5	502	HE Water Heater (EF=0.70)	0.40

Seg	Measure #	Measure Description	Feasibility Factor
5	503	Solar Water Heater	0.25
5	507	Tankless Water Heater	0.50
5	508	Drain Water Heat Recovery (GFX)	0.50
5	600	Base Clotheswasher (EF=1.18)	1.00
5	601	Energy Star CW (EF=2.5)	1.00
5	602	SEHA CW Tier 2 (EF=3.25)	1.00
5	800	Base Dishwasher (EF=0.46)	1.00
5	801	Energy Star DW (EF=0.58)	1.00
5	900	Conventional Oven	1.00
5	901	Convection Oven	1.00
6	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
6	181	Condensing Furnace, 92 AFUE	0.40
6	182	Condensing Furnace, 96 AFUE	0.40
6	194	Integrated Space and Water Heating	0.20
6	195	Natural Choice / ENERGY STAR New Man. Housing	1.00
6	500	Base 40 gal. Water Heating (EF=0.54)	1.00
6	501	HE Water Heater (EF=0.63)	0.40
6	502	HE Water Heater (EF=0.70)	0.40
6	503	Solar Water Heater	0.25
6	507	Tankless Water Heater	0.50
6	508	Drain Water Heat Recovery (GFX)	0.50
6	600	Base Clotheswasher (EF=1.18)	1.00
6	601	Energy Star CW (EF=2.5)	1.00
6	602	SEHA CW Tier 2 (EF=3.25)	1.00
6	800	Base Dishwasher (EF=0.46)	1.00
6	801	Energy Star DW (EF=0.58)	1.00
6	900	Conventional Oven	1.00
6	901	Convection Oven	1.00

Incomplete Factor(Percent)

Seg	Measure #	Measure Description	Incomplete Factor
1	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
1	181	Condensing Furnace, 92 AFUE	0.90
1	182	Condensing Furnace, 96 AFUE	0.90
1	183	ENERGY STAR Programmable Thermostat	0.50
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	0.18
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.69
1	186	Floor R-0 to R-19 Insulation-Batts	0.80
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	0.50
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.40
1	189	Duct Repair and Sealing	0.72
1	190	Duct Insulation (.6)	0.25
1	191	Furnace Diagnostic Testing, Repair and Maintenance	0.30
1	192	Windows (high efficiency / ENERGY STAR+)	0.99
1	193	Addition of Attic and Crawlspace Ventilation	1.00
1	194	Integrated Space and Water Heating	1.00
1	500	Base 40 gal. Water Heating (EF=0.54)	1.00
1	501	HE Water Heater (EF=0.63)	0.88
1	502	HE Water Heater (EF=0.70)	0.88
1	503	Solar Water Heater	0.99
1	504	Low-Flow Showerheads	0.30
1	505	Hot Water Pipe Insulation	0.80
1	506	Water Heater Thermostat Setback	1.00
1	507	Tankless Water Heater	1.00
1	508	Drain Water Heat Recovery (GFX)	1.00
1	600	Base Clotheswasher (EF=1.18)	1.00
1	601	Energy Star CW (EF=2.5)	0.97
1	602	SEHA CW Tier 2 (EF=3.25)	0.97

Seg	Measure #	Measure Description	Incomplete Factor
1	800	Base Dishwasher (EF=0.46)	1.00
1	801	Energy Star DW (EF=0.58)	0.92
1	900	Conventional Oven	1.00
1	901	Convection Oven	1.00
2	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
2	181	Condensing Furnace, 92 AFUE	0.90
2	182	Condensing Furnace, 96 AFUE	0.90
2	183	ENERGY STAR Programmable Thermostat	0.10
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	1.00
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.68
2	186	Floor R-0 to R-19 Insulation-Batts	1.00
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	1.00
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.20
2	189	Duct Repair and Sealing	0.36
2	190	Duct Insulation (.6)	1.00
2	191	Furnace Diagnostic Testing, Repair and Maintenance	0.30
2	192	Windows (high efficiency / ENERGY STAR+)	1.00
2	193	Addition of Attic and Crawlspace Ventilation	1.00
2	194	Integrated Space and Water Heating	1.00
2	500	Base 40 gal. Water Heating (EF=0.54)	1.00
2	501	HE Water Heater (EF=0.63)	0.88
2	502	HE Water Heater (EF=0.70)	0.88
2	503	Solar Water Heater	0.99
2	504	Low-Flow Showerheads	0.30
2	505	Hot Water Pipe Insulation	0.80
2	506	Water Heater Thermosat Setback	1.00
2	507	Tankless Water Heater	1.00
2	508	Drain Water Heat Recovery (GFX)	1.00

Seg	Measure #	Measure Description	Incomplete Factor
2	550	Base Boiler	1.00
2	551	High Efficiency Condensing Boiler	1.00
2	600	Base Clotheswasher (EF=1.18)	1.00
2	601	Energy Star CW (EF=2.5)	0.97
2	602	SEHA CW Tier 2 (EF=3.25)	0.97
2	800	Base Dishwasher (EF=0.46)	1.00
2	801	Energy Star DW (EF=0.58)	0.92
2	900	Conventional Oven	1.00
2	901	Convection Oven	1.00
3	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
3	181	Condensing Furnace, 92 AFUE	0.90
3	182	Condensing Furnace, 96 AFUE	0.90
3	183	ENERGY STAR Programmable Thermostat	0.65
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	0.18
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	0.69
3	186	Floor R-0 to R-19 Insulation-Batts	1.00
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	0.60
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	0.40
3	189	Duct Repair and Sealing	0.72
3	190	Duct Insulation (.6)	0.25
3	191	Furnace Diagnostic Testing, Repair and Maintenance	0.30
3	192	Windows (high efficiency / ENERGY STAR+)	1.00
3	193	Addition of Attic and Crawlspace Ventilation	1.00
3	194	Integrated Space and Water Heating	1.00
3	500	Base 40 gal. Water Heating (EF=0.54)	1.00
3	501	HE Water Heater (EF=0.63)	0.88
3	502	HE Water Heater (EF=0.70)	0.88
3	503	Solar Water Heater	0.99

Seg	Measure #	Measure Description	Incomplete Factor
3	504	Low-Flow Showerheads	0.30
3	505	Hot Water Pipe Insulation	0.80
3	506	Water Heater Thermosat Setback	1.00
3	507	Tankless Water Heater	1.00
3	508	Drain Water Heat Recovery (GFX)	1.00
3	600	Base Clotheswasher (EF=1.18)	1.00
3	601	Energy Star CW (EF=2.5)	0.97
3	602	SEHA CW Tier 2 (EF=3.25)	0.97
3	800	Base Dishwasher (EF=0.46)	1.00
3	801	Energy Star DW (EF=0.58)	0.92
3	900	Conventional Oven	1.00
3	901	Convection Oven	1.00
4	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
4	181	Condensing Furnace, 92 AFUE	0.90
4	182	Condensing Furnace, 96 AFUE	0.90
4	194	Integrated Space and Water Heating	1.00
4	195	ENERGY STAR New Construction	1.00
4	196	ENERGY STAR New Construction Plus	1.00
4	500	Base 40 gal. Water Heating (EF=0.54)	1.00
4	501	HE Water Heater (EF=0.63)	0.88
4	502	HE Water Heater (EF=0.70)	0.88
4	503	Solar Water Heater	0.99
4	507	Tankless Water Heater	1.00
4	508	Drain Water Heat Recovery (GFX)	1.00
4	600	Base Clotheswasher (EF=1.18)	1.00
4	601	Energy Star CW (EF=2.5)	0.97
4	602	SEHA CW Tier 2 (EF=3.25)	0.97
4	800	Base Dishwasher (EF=0.46)	1.00
4	801	Energy Star DW (EF=0.58)	0.92
4	900	Conventional Oven	1.00
4	901	Convection Oven	1.00
5	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
5	181	Condensing Furnace, 92 AFUE	0.90
5	182	Condensing Furnace, 96 AFUE	0.90

Seg	Measure #	Measure Description	Incomplete Factor
5	194	Integrated Space and Water Heating	1.00
5	195	ENERGY STAR New Construction	1.00
5	196	ENERGY STAR New Construction Plus	1.00
5	500	Base 40 gal. Water Heating (EF=0.54)	1.00
5	501	HE Water Heater (EF=0.63)	0.88
5	502	HE Water Heater (EF=0.70)	0.88
5	503	Solar Water Heater	0.99
5	507	Tankless Water Heater	1.00
5	508	Drain Water Heat Recovery (GFX)	1.00
5	600	Base Clotheswasher (EF=1.18)	1.00
5	601	Energy Star CW (EF=2.5)	0.97
5	602	SEHA CW Tier 2 (EF=3.25)	0.97
5	800	Base Dishwasher (EF=0.46)	1.00
5	801	Energy Star DW (EF=0.58)	0.92
5	900	Conventional Oven	1.00
5	901	Convection Oven	1.00
6	180	Base Furnace, 80 AFUE, 80 kbtu	1.00
6	181	Condensing Furnace, 92 AFUE	0.90
6	182	Condensing Furnace, 96 AFUE	0.90
6	194	Integrated Space and Water Heating	1.00
6	195	Natural Choice / ENERGY STAR New Man. Housing	1.00
6	500	Base 40 gal. Water Heating (EF=0.54)	1.00
6	501	HE Water Heater (EF=0.63)	0.88
6	502	HE Water Heater (EF=0.70)	0.88
6	503	Solar Water Heater	0.99
6	507	Tankless Water Heater	1.00
6	508	Drain Water Heat Recovery (GFX)	1.00
6	600	Base Clotheswasher (EF=1.18)	1.00
6	601	Energy Star CW (EF=2.5)	0.97
6	602	SEHA CW Tier 2 (EF=3.25)	0.97
6	800	Base Dishwasher (EF=0.46)	1.00
6	801	Energy Star DW (EF=0.58)	0.92

Seg	Measure #	Measure Description	Incomplete Factor
6	900	Conventional Oven	1.00
6	901	Convection Oven	1.00

Technology Saturation (units per dwelling unit; e.g., square feet of ceiling per home, linear feet of ductwork per home)

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
1	180	Base Furnace, 80 AFUE, 80 kbtu	1
1	181	Condensing Furnace, 92 AFUE	1
1	182	Condensing Furnace, 96 AFUE	1
1	183	ENERGY STAR Programmable Thermostat	1
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	945
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	945
1	186	Floor R-0 to R-19 Insulation-Batts	1350
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	1011
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	1
1	189	Duct Repair and Sealing	1
1	190	Duct Insulation (.6)	1
1	191	Furnace Diagnostic Testing, Repair and Maintenance	1
1	192	Windows (high efficiency / ENERGY STAR+)	149
1	193	Addition of Attic and Crawlspace Ventilation	1
1	194	Integrated Space and Water Heating	1
1	500	Base 40 gal. Water Heating (EF=0.54)	1
1	501	HE Water Heater (EF=0.63)	1
1	502	HE Water Heater (EF=0.70)	1
1	503	Solar Water Heater	1

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
1	504	Low-Flow Showerheads	1
1	505	Hot Water Pipe Insulation	1
1	506	Water Heater Thermostat Setback	1
1	507	Tankless Water Heater	1
1	508	Drain Water Heat Recovery (GFX)	1
1	600	Base Clotheswasher (EF=1.18)	1
1	601	Energy Star CW (EF=2.5)	1
1	602	SEHA CW Tier 2 (EF=3.25)	1
1	800	Base Dishwasher (EF=0.46)	1
1	801	Energy Star DW (EF=0.58)	1
1	900	Conventional Oven	1
1	901	Convection Oven	1
2	180	Base Furnace, 80 AFUE, 80 kbtu	1
2	181	Condensing Furnace, 92 AFUE	1
2	182	Condensing Furnace, 96 AFUE	1
2	183	ENERGY STAR Programmable Thermostat	1
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	680
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	680
2	186	Floor R-0 to R-19 Insulation-Batts	680
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	316.586081
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	1
2	189	Duct Repair and Sealing	1
2	190	Duct Insulation (.6)	1
2	191	Furnace Diagnostic Testing, Repair and Maintenance	1
2	192	Windows (high efficiency / ENERGY STAR+)	70.989011
2	193	Addition of Attic and Crawlspace Ventilation	1
2	194	Integrated Space and Water Heating	1

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
2	500	Base 40 gal. Water Heating (EF=0.54)	1
2	501	HE Water Heater (EF=0.63)	1
2	502	HE Water Heater (EF=0.70)	1
2	503	Solar Water Heater	1
2	504	Low-Flow Showerheads	1
2	505	Hot Water Pipe Insulation	1
2	506	Water Heater Thermostat Setback	1
2	507	Tankless Water Heater	1
2	508	Drain Water Heat Recovery (GFX)	1
2	550	Base Boiler	1
2	551	High Efficiency Condensing Boiler	1
2	600	Base Clotheswasher (EF=1.18)	1
2	601	Energy Star CW (EF=2.5)	1
2	602	SEHA CW Tier 2 (EF=3.25)	1
2	800	Base Dishwasher (EF=0.46)	1
2	801	Energy Star DW (EF=0.58)	1
2	900	Conventional Oven	1
2	901	Convection Oven	1
3	180	Base Furnace, 80 AFUE, 80 kbtu	1
3	181	Condensing Furnace, 92 AFUE	1
3	182	Condensing Furnace, 96 AFUE	1
3	183	ENERGY STAR Programmable Thermostat	1
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	805
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	805
3	186	Floor R-0 to R-19 Insulation-Batts	805
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	913.030303
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	1
3	189	Duct Repair and Sealing	1
3	190	Duct Insulation (.6)	1
3	191	Furnace Diagnostic Testing, Repair and Maintenance	1

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
3	192	Windows (high efficiency / ENERGY STAR+)	101.060606
3	193	Addition of Attic and Crawlspace Ventilation	1
3	194	Integrated Space and Water Heating	1
3	500	Base 40 gal. Water Heating (EF=0.54)	1
3	501	HE Water Heater (EF=0.63)	1
3	502	HE Water Heater (EF=0.70)	1
3	503	Solar Water Heater	1
3	504	Low-Flow Showerheads	1
3	505	Hot Water Pipe Insulation	1
3	506	Water Heater Thermosat Setback	1
3	507	Tankless Water Heater	1
3	508	Drain Water Heat Recovery (GFX)	1
3	600	Base Clotheswasher (EF=1.18)	1
3	601	Energy Star CW (EF=2.5)	1
3	602	SEHA CW Tier 2 (EF=3.25)	1
3	800	Base Dishwasher (EF=0.46)	1
3	801	Energy Star DW (EF=0.58)	1
3	900	Conventional Oven	1
3	901	Convection Oven	1
4	180	Base Furnace, 80 AFUE, 80 kbtu	1
4	181	Condensing Furnace, 92 AFUE	1
4	182	Condensing Furnace, 96 AFUE	1
4	194	Integrated Space and Water Heating	1
4	195	ENERGY STAR New Construction	1
4	196	ENERGY STAR New Construction Plus	1
4	500	Base 40 gal. Water Heating (EF=0.54)	1
4	501	HE Water Heater (EF=0.63)	1
4	502	HE Water Heater (EF=0.70)	1
4	503	Solar Water Heater	1
4	507	Tankless Water Heater	1

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
4	508	Drain Water Heat Recovery (GFX)	1
4	600	Base Clotheswasher (EF=1.18)	1
4	601	Energy Star CW (EF=2.5)	1
4	602	SEHA CW Tier 2 (EF=3.25)	1
4	800	Base Dishwasher (EF=0.46)	1
4	801	Energy Star DW (EF=0.58)	1
4	900	Conventional Oven	1
4	901	Convection Oven	1
5	180	Base Furnace, 80 AFUE, 80 kbtu	1
5	181	Condensing Furnace, 92 AFUE	1
5	182	Condensing Furnace, 96 AFUE	1
5	194	Integrated Space and Water Heating	1
5	195	ENERGY STAR New Construction	1
5	196	ENERGY STAR New Construction Plus	1
5	500	Base 40 gal. Water Heating (EF=0.54)	1
5	501	HE Water Heater (EF=0.63)	1
5	502	HE Water Heater (EF=0.70)	1
5	503	Solar Water Heater	1
5	507	Tankless Water Heater	1
5	508	Drain Water Heat Recovery (GFX)	1
5	600	Base Clotheswasher (EF=1.18)	1
5	601	Energy Star CW (EF=2.5)	1
5	602	SEHA CW Tier 2 (EF=3.25)	1
5	800	Base Dishwasher (EF=0.46)	1
5	801	Energy Star DW (EF=0.58)	1
5	900	Conventional Oven	1
5	901	Convection Oven	1
6	180	Base Furnace, 80 AFUE, 80 kbtu	1
6	181	Condensing Furnace, 92 AFUE	1
6	182	Condensing Furnace, 96 AFUE	1
6	194	Integrated Space and Water Heating	1

Seg	Measure #	B.1.1 Measure Description	Tech Saturation
6	195	Natural Choice / ENERGY STAR New Man. Housing	1
6	500	Base 40 gal. Water Heating (EF=0.54)	1
6	501	HE Water Heater (EF=0.63)	1
6	502	HE Water Heater (EF=0.70)	1
6	503	Solar Water Heater	1
6	507	Tankless Water Heater	1
6	508	Drain Water Heat Recovery (GFX)	1
6	600	Base Clotheswasher (EF=1.18)	1
6	601	Energy Star CW (EF=2.5)	1
6	602	SEHA CW Tier 2 (EF=3.25)	1
6	800	Base Dishwasher (EF=0.46)	1
6	801	Energy Star DW (EF=0.58)	1
6	900	Conventional Oven	1
6	901	Convection Oven	1

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
1	180	Base Furnace, 80 AFUE, 100 kbtu	PSE Gas Existing	226,584,685	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
1	191	Furnace Diagnostic Testing, Repair and Maintenance	PSE Gas Existing	212,838,193	13,746,492	13,746,492	6%	\$0.132	\$0.152	Space Heat	Level A	Level A
1	183	ENERGY STAR Programmable Thermostat	PSE Gas Existing	207,572,093	5,266,100	19,012,591	8%	\$0.250	\$0.288	Space Heat	Level A	Level A
1	193	Addition of Attic and Crawlspace Ventilation	PSE Gas Existing	197,193,489	10,378,605	29,391,196	13%	\$0.175	\$0.202	Space Heat	Level A	Level A
1	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	PSE Gas Existing	189,978,847	7,214,642	36,605,838	16%	\$0.351	\$0.403	Space Heat	Level B	Level B
1	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	PSE Gas Existing	180,795,632	9,183,215	45,789,053	20%	\$0.680	\$0.782	Space Heat	Level D	Level D
1	189	Duct Testing and Sealing	PSE Gas Existing	174,099,497	6,696,134	52,485,187	23%	\$1.017	\$1.170	Space Heat	Level E	Level E
1	181	Condensing Furnace, 92 AFUE	PSE Gas Existing	165,816,349	8,283,148	60,768,335	27%	\$0.945	\$1.087	Space Heat	Level D	Level E
1	182	Condensing Furnace, 96 AFUE	PSE Gas Existing	155,698,742	10,117,608	70,885,943	31%	\$1.045	\$1.202	Space Heat	Level E	Level E
1	190	Duct Insulation (.6)	PSE Gas Existing	154,926,937	771,805	71,657,748	32%	\$1.367	\$1.572	Space Heat	Level E	Level E
1	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	PSE Gas Existing	151,886,113	3,040,824	74,698,572	33%	\$1.570	\$1.806	Space Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
1	188	Comprehensive Shell Air Sealing - Inf. Reduction	PSE Gas Existing	148,285,099	3,601,014	78,299,586	35%	\$3.198	\$3.678	Space Heat	Level E	Level E
1	186	Floor R-0 to R-19 Insulation-Batts	PSE Gas Existing	146,083,919	2,201,180	80,500,766	36%	\$3.343	\$3.844	Space Heat	Level E	Level E
1	194	Integrated Space and Water Heating	PSE Gas Existing	143,542,059	2,541,860	83,042,626	37%	\$4.827	\$5.551	Space Heat	Level E	Level E
1	192	Windows (high efficiency / ENERGY STAR+)	PSE Gas Existing	136,087,836	7,454,223	90,496,849	40%	\$7.976	\$9.172	Space Heat	Level E	Level E
1	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas Existing	76,723,467	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A
1	505	Hot Water Pipe Insulation	PSE Gas Existing	74,581,580	2,141,886	2,141,886	3%	\$0.069	\$0.080	Water Heat	Level A	Level A
1	504	Low-Flow Showerheads	PSE Gas Existing	72,138,391	2,443,190	4,585,076	6%	\$0.099	\$0.114	Water Heat	Level A	Level A
1	502	HE Water Heater (EF=0.70)	PSE Gas Existing	65,424,688	6,713,702	11,298,778	15%	\$0.348	\$0.401	Water Heat	Level B	Level B
1	501	HE Water Heater (EF=0.63)	PSE Gas Existing	61,658,965	3,765,723	15,064,502	20%	\$0.413	\$0.475	Water Heat	Level B	Level C
1	508	Drain Water Heat Recovery (GFX)	PSE Gas Existing	55,864,772	5,794,194	20,858,695	27%	\$0.526	\$0.604	Water Heat	Level C	Level C
1	506	Water Heater Thermostat Setback	PSE Gas Existing	53,487,547	2,377,224	23,235,919	30%	\$1.256	\$1.444	Water Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
1	507	Tankless Water Heater	PSE Gas Existing	48,921,537	4,566,010	27,801,929	36%	\$1.506	\$1.731	Water Heat	Level E	Level E
1	503	Solar Water Heater	PSE Gas Existing	34,406,502	14,515,035	42,316,964	55%	\$1.919	\$2.207	Water Heat	Level E	Level E
1	600	Base Clotheswasher (EF=1.18)	PSE Gas Existing	11,522,924	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
1	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas Existing	4,265,206	7,257,718	7,257,718	63%	\$1.385	\$1.592	Appliances	Level E	Level E
1	601	Horizontal-Axis Clothes Washer	PSE Gas Existing	2,045,579	2,219,627	9,477,345	82%	\$5.226	\$6.010	Appliances	Level E	Level E
1	800	Base Dishwasher (EF=0.46)	PSE Gas Existing	6,913,754	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
1	801	Energy Star DW (EF=0.58)	PSE Gas Existing	5,578,425	1,335,329	1,335,329	19%	\$4.745	\$5.457	Appliances	Level E	Level E
1	900	Base Conventional Oven	PSE Gas Existing	18,425,505	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
1	901	Convection Oven	PSE Gas Existing	15,492,908	2,932,596	2,932,596	16%	\$1.586	\$1.823	Appliances	Level E	Level E
2	180	Base Furnace, 80 AFUE,60 kbtu	PSE Gas Existing	63,870,216	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
2	183	ENERGY STAR Programmable Thermostat	PSE Gas Existing	63,546,139	324,077	324,077	1%	\$0.327	\$0.376	Space Heat	Level B	Level B

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
2	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	PSE Gas Existing	56,207,180	7,338,960	7,663,037	12%	\$0.214	\$0.246	Space Heat	Level A	Level A
2	193	Addition of Attic and Crawlspace Ventilation	PSE Gas Existing	54,970,622	1,236,558	8,899,595	14%	\$0.591	\$0.680	Space Heat	Level C	Level D
2	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	PSE Gas Existing	49,731,844	5,238,777	14,138,372	22%	\$0.774	\$0.891	Space Heat	Level D	Level D
2	188	Comprehensive Shell Air Sealing - Inf. Reduction	PSE Gas Existing	48,274,962	1,456,882	15,595,254	24%	\$1.188	\$1.366	Space Heat	Level E	Level E
2	182	Condensing Furnace, 96 AFUE	PSE Gas Existing	45,329,371	2,945,591	18,540,845	29%	\$1.161	\$1.335	Space Heat	Level E	Level E
2	181	Condensing Furnace, 92 AFUE	PSE Gas Existing	43,172,731	2,156,640	20,697,485	32%	\$1.279	\$1.471	Space Heat	Level E	Level E
2	191	Furnace Diagnostic Testing, Repair and Maintenance	PSE Gas Existing	42,715,070	457,661	21,155,147	33%	\$1.595	\$1.834	Space Heat	Level E	Level E
2	186	Floor R-0 to R-19 Insulation-Batts	PSE Gas Existing	41,475,797	1,239,273	22,394,419	35%	\$1.501	\$1.726	Space Heat	Level E	Level E
2	192	Windows (high efficiency / ENERGY STAR+)	PSE Gas Existing	38,093,066	3,382,732	25,777,151	40%	\$3.389	\$3.897	Space Heat	Level E	Level E
2	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	PSE Gas Existing	37,903,674	189,391	25,966,542	41%	\$7.187	\$8.265	Space Heat	Level E	Level E
2	194	Integrated Space and Water Heating	PSE Gas Existing	37,380,604	523,071	26,489,613	41%	\$9.427	\$10.841	Space Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
2	189	Duct Testing and Sealing	PSE Gas Existing	37,360,379	20,224	26,509,837	42%	\$67.666	\$77.816	Space Heat	Level E	Level E
2	190	Duct Insulation (.6)	PSE Gas Existing	37,360,379	0	26,509,837	42%	N/A	\$0.000	Space Heat	Level E	Level A
2	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas Existing	26,819,110	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A
2	505	Hot Water Pipe Insulation	PSE Gas Existing	26,045,482	773,628	773,628	3%	\$0.071	\$0.082	Water Heat	Level A	Level A
2	504	Low-Flow Showerheads	PSE Gas Existing	25,192,268	853,214	1,626,842	6%	\$0.149	\$0.171	Water Heat	Level A	Level A
2	502	HE Water Heater (EF=0.70)	PSE Gas Existing	22,847,700	2,344,568	3,971,411	15%	\$0.520	\$0.598	Water Heat	Level C	Level C
2	501	HE Water Heater (EF=0.63)	PSE Gas Existing	21,532,629	1,315,071	5,286,482	20%	\$0.617	\$0.709	Water Heat	Level C	Level D
2	508	Drain Water Heat Recovery (GFX)	PSE Gas Existing	19,396,455	2,136,173	7,422,655	28%	\$0.743	\$0.855	Water Heat	Level D	Level D
2	506	Water Heater Thermostat Setback	PSE Gas Existing	18,571,074	825,381	8,248,036	31%	\$1.886	\$2.169	Water Heat	Level E	Level E
2	507	Tankless Water Heater	PSE Gas Existing	16,985,739	1,585,336	9,833,372	37%	\$2.262	\$2.601	Water Heat	Level E	Level E
2	503	Solar Water Heater	PSE Gas Existing	11,946,065	5,039,674	14,873,046	55%	\$2.883	\$3.315	Water Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
2	550	Base Boiler (AFUE = 80%)	PSE Gas Existing	85,249,862	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
2	551	High Efficiency Condensing Boiler (AFUE = 90%)	PSE Gas Existing	79,566,538	5,683,324	5,683,324	7%	\$0.779	\$0.896	Space Heat	Level D	Level D
2	600	Base Clotheswasher (EF=1.18)	PSE Gas Existing	4,027,901	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
2	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas Existing	1,490,926	2,536,975	2,536,975	63%	\$2.066	\$2.376	Appliances	Level E	Level E
2	601	Horizontal-Axis Clothes Washer	PSE Gas Existing	715,043	775,883	3,312,858	82%	\$7.798	\$8.968	Appliances	Level E	Level E
2	800	Base Dishwasher (EF=0.46)	PSE Gas Existing	2,416,741	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
2	801	Energy Star DW (EF=0.58)	PSE Gas Existing	1,949,969	466,772	466,772	19%	\$7.080	\$8.141	Appliances	Level E	Level E
2	900	Base Conventional Oven	PSE Gas Existing	6,635,385	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
2	901	Convection Oven	PSE Gas Existing	3,317,692	3,317,692	3,317,692	50%	\$0.746	\$0.858	Appliances	Level D	Level D
3	180	Base Furnace, 80 AFUE, 80 kbtu	PSE Gas Existing	17,495,333	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
3	183	ENERGY STAR Programmable Thermostat	PSE Gas Existing	16,937,770	557,563	557,563	3%	\$0.264	\$0.303	Space Heat	Level A	Level B

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
3	193	Addition of Attic and Crawlspace Ventilation	PSE Gas Existing	16,090,881	846,888	1,404,452	8%	\$0.196	\$0.225	Space Heat	Level A	Level A
3	191	Furnace Diagnostic Testing, Repair and Maintenance	PSE Gas Existing	15,467,669	623,212	2,027,664	12%	\$0.250	\$0.288	Space Heat	Level A	Level A
3	188	Comprehensive Shell Air Sealing - Inf. Reduction	PSE Gas Existing	15,168,789	298,880	2,326,543	13%	\$0.509	\$0.585	Space Heat	Level C	Level C
3	186	Floor R-0 to R-19 Insulation-Batts	PSE Gas Existing	14,523,054	645,735	2,972,279	17%	\$0.774	\$0.890	Space Heat	Level D	Level D
3	181	Condensing Furnace, 92 AFUE	PSE Gas Existing	13,832,089	690,965	3,663,243	21%	\$0.913	\$1.050	Space Heat	Level D	Level E
3	182	Condensing Furnace, 96 AFUE	PSE Gas Existing	12,988,097	843,992	4,507,235	26%	\$0.969	\$1.115	Space Heat	Level D	Level E
3	192	Windows (high efficiency / ENERGY STAR+)	PSE Gas Existing	10,572,311	2,415,786	6,923,022	40%	\$1.181	\$1.358	Space Heat	Level E	Level E
3	190	Duct Insulation (.6)	PSE Gas Existing	10,529,837	42,475	6,965,496	40%	\$1.474	\$1.695	Space Heat	Level E	Level E
3	184	Ceiling R-0 to R-19 Insulation Blown-in (.71)	PSE Gas Existing	10,386,971	142,866	7,108,362	41%	\$1.504	\$1.729	Space Heat	Level E	Level E
3	185	Ceiling R-19 to R-38 Insulation Blown in (.73)	PSE Gas Existing	10,210,320	176,651	7,285,013	42%	\$2.293	\$2.637	Space Heat	Level E	Level E
3	194	Integrated Space and Water Heating	PSE Gas Existing	9,837,447	372,873	7,657,886	44%	\$2.823	\$3.247	Space Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
3	187	Wall 2x4 R-0 to Blow-In R-13 Insulation (.86)	PSE Gas Existing	9,837,447	0	7,657,886	44%	N/A	\$0.000	Space Heat	Level E	Level A
3	189	Duct Testing and Sealing	PSE Gas Existing	9,837,447	0	7,657,886	44%	N/A	\$0.000	Space Heat	Level E	Level A
3	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas Existing	4,718,206	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A
3	505	Hot Water Pipe Insulation	PSE Gas Existing	4,594,536	123,670	123,670	3%	\$0.065	\$0.075	Water Heat	Level A	Level A
3	504	Low-Flow Showerheads	PSE Gas Existing	4,444,025	150,511	274,181	6%	\$0.123	\$0.141	Water Heat	Level A	Level A
3	502	HE Water Heater (EF=0.70)	PSE Gas Existing	4,030,433	413,592	687,773	15%	\$0.429	\$0.494	Water Heat	Level B	Level C
3	501	HE Water Heater (EF=0.63)	PSE Gas Existing	3,798,449	231,984	919,757	19%	\$0.509	\$0.585	Water Heat	Level C	Level C
3	508	Drain Water Heat Recovery (GFX)	PSE Gas Existing	3,458,234	340,215	1,259,973	27%	\$0.679	\$0.781	Water Heat	Level D	Level D
3	507	Tankless Water Heater	PSE Gas Existing	3,163,018	295,215	1,555,188	33%	\$1.768	\$2.033	Water Heat	Level E	Level E
3	503	Solar Water Heater	PSE Gas Existing	2,224,550	938,469	2,493,656	53%	\$2.253	\$2.591	Water Heat	Level E	Level E
3	506	Water Heater Thermostat Setback	PSE Gas Existing	2,129,888	94,662	2,588,318	55%	\$4.307	\$4.954	Water Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
3	600	Base Clotheswasher (EF=1.18)	PSE Gas Existing	612,295	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
3	601	Horizontal-Axis Clothes Washer	PSE Gas Existing	293,655	318,640	318,640	52%	\$2.764	\$3.178	Appliances	Level E	Level E
3	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas Existing	108,696	184,959	503,599	82%	\$4.125	\$4.743	Appliances	Level E	Level E
3	800	Base Dishwasher (EF=0.46) - Does this belong in gas?	PSE Gas Existing	472,714	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
3	801	Energy Star DW (EF=0.58)	PSE Gas Existing	381,414	91,300	91,300	19%	\$5.268	\$6.058	Appliances	Level E	Level E
3	900	Base Conventional Oven	PSE Gas Existing	1,328,839	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
3	901	Convection Oven	PSE Gas Existing	1,092,601	236,238	236,238	18%	\$1.586	\$1.823	Appliances	Level E	Level E
4	180	Base Furnace, 80 AFUE, 120 kbtu	PSE Gas New	6,411,964	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
4	181	Condensing Furnace, 92 AFUE	PSE Gas New	6,106,902	305,063	305,063	5%	\$0.724	\$0.833	Space Heat	Level D	Level D
4	182	Condensing Furnace, 96 AFUE	PSE Gas New	5,734,277	372,625	677,687	11%	\$0.870	\$1.001	Space Heat	Level D	Level E
4	194	Integrated Space and Water Heating	PSE Gas New	5,453,304	280,974	958,661	15%	\$2.442	\$2.808	Space Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
4	195	ENERGY STAR New Construction	PSE Gas New	3,817,312	1,635,991	2,594,652	40%	\$1.405	\$1.615	Space Heat	Level E	Level E
4	196	ENERGY STAR New Construction Plus	PSE Gas New	2,290,387	1,526,925	4,121,577	64%	\$2.508	\$2.885	Space Heat	Level E	Level E
4	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas New	3,054,996	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A
4	502	HE Water Heater (EF=0.70)	PSE Gas New	2,802,268	252,728	252,728	8%	\$0.270	\$0.311	Water Heat	Level A	Level B
4	501	HE Water Heater (EF=0.63)	PSE Gas New	2,658,896	143,372	396,100	13%	\$0.317	\$0.364	Water Heat	Level B	Level B
4	508	Drain Water Heat Recovery (GFX)	PSE Gas New	2,243,347	415,549	811,649	27%	\$0.481	\$0.553	Water Heat	Level C	Level C
4	507	Tankless Water Heater	PSE Gas New	1,860,337	383,010	1,194,660	39%	\$1.178	\$1.355	Water Heat	Level E	Level E
4	503	Solar Water Heater	PSE Gas New	1,442,183	418,153	1,612,813	53%	\$1.656	\$1.905	Water Heat	Level E	Level E
4	600	Base Clotheswasher (EF=1.18)	PSE Gas New	433,333	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
4	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas New	160,398	272,935	272,935	63%	\$1.208	\$1.390	Appliances	Level E	Level E
4	601	Horizontal-Axis Clothes Washer	PSE Gas New	76,926	83,472	356,406	82%	\$4.561	\$5.245	Appliances	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
4	800	Base Dishwasher (EF=0.46)	PSE Gas New	260,000	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
4	801	Energy Star DW (EF=0.58)	PSE Gas New	209,783	50,217	50,217	19%	\$4.141	\$4.762	Appliances	Level E	Level E
4	900	Base Conventional Oven	PSE Gas New	495,213	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
4	901	Convection Oven	PSE Gas New	406,543	88,670	88,670	18%	\$1.409	\$1.621	Appliances	Level E	Level E
5	180	Base Furnace, 80 AFUE, 80 kbtu	PSE Gas New	1,866,548	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
5	181	Condensing Furnace, 92 AFUE	PSE Gas New	1,777,743	88,805	88,805	5%	\$1.004	\$1.154	Space Heat	Level E	Level E
5	182	Condensing Furnace, 96 AFUE	PSE Gas New	1,669,270	108,472	197,277	11%	\$1.066	\$1.226	Space Heat	Level E	Level E
5	194	Integrated Space and Water Heating	PSE Gas New	1,641,871	27,400	224,677	12%	\$10.860	\$12.489	Space Heat	Level E	Level E
5	195	ENERGY STAR New Construction	PSE Gas New	1,149,309	492,561	717,238	38%	\$1.479	\$1.700	Space Heat	Level E	Level E
5	196	ENERGY STAR New Construction Plus	PSE Gas New	689,586	459,724	1,176,962	63%	\$2.529	\$2.909	Space Heat	Level E	Level E
5	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas New	980,833	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
5	502	HE Water Heater (EF=0.70)	PSE Gas New	899,693	81,141	81,141	8%	\$0.403	\$0.464	Water Heat	Level B	Level C
5	501	HE Water Heater (EF=0.63)	PSE Gas New	853,662	46,031	127,171	13%	\$0.473	\$0.544	Water Heat	Level C	Level C
5	508	Drain Water Heat Recovery (GFX)	PSE Gas New	711,618	142,043	269,215	27%	\$0.675	\$0.776	Water Heat	Level D	Level D
5	507	Tankless Water Heater	PSE Gas New	590,123	121,496	390,711	40%	\$1.781	\$2.048	Water Heat	Level E	Level E
5	503	Solar Water Heater	PSE Gas New	457,479	132,644	523,354	53%	\$2.504	\$2.879	Water Heat	Level E	Level E
5	600	Base Clotheswasher (EF=1.18)	PSE Gas New	139,125	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
5	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas New	51,497	87,628	87,628	63%	\$1.805	\$2.076	Appliances	Level E	Level E
5	601	Horizontal-Axis Clothes Washer	PSE Gas New	24,698	26,799	114,427	82%	\$6.812	\$7.834	Appliances	Level E	Level E
5	800	Base Dishwasher (EF=0.46)	PSE Gas New	83,475	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
5	801	Energy Star DW (EF=0.58)	PSE Gas New	67,353	16,122	16,122	19%	\$6.184	\$7.112	Appliances	Level E	Level E
5	900	Base Conventional Oven	PSE Gas New	200,211	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
5	901	Convection Oven	PSE Gas New	94,217	105,994	105,994	53%	\$0.705	\$0.810	Appliances	Level D	Level D
6	180	Base Furnace, 80 AFUE, 80 kbtu	PSE Gas New	1,451,876	0	0	0%	N/A	\$0.000	Space Heat	N/A	N/A
6	181	Condensing Furnace, 92 AFUE	PSE Gas New	1,382,800	69,076	69,076	5%	\$0.748	\$0.861	Space Heat	Level D	Level D
6	182	Condensing Furnace, 96 AFUE	PSE Gas New	1,298,426	84,374	153,450	11%	\$0.795	\$0.914	Space Heat	Level D	Level D
6	194	Integrated Space and Water Heating	PSE Gas New	1,255,353	43,072	196,522	14%	\$4.007	\$4.608	Space Heat	Level E	Level E
6	195	Natural Choice / ENERGY STAR New Man. Housing	PSE Gas New	878,747	376,606	573,128	39%	\$1.023	\$1.177	Space Heat	Level E	Level E
6	500	Base 40 gal. Water Heating (EF=0.54)	PSE Gas New	521,679	0	0	0%	N/A	\$0.000	Water Heat	N/A	N/A
6	502	HE Water Heater (EF=0.70)	PSE Gas New	478,523	43,157	43,157	8%	\$0.300	\$0.345	Water Heat	Level A	Level B
6	501	HE Water Heater (EF=0.63)	PSE Gas New	454,040	24,483	67,639	13%	\$0.351	\$0.404	Water Heat	Level B	Level B
6	508	Drain Water Heat Recovery (GFX)	PSE Gas New	386,178	67,862	135,501	26%	\$0.558	\$0.642	Water Heat	Level C	Level C
6	507	Tankless Water Heater	PSE Gas New	320,245	65,933	201,434	39%	\$1.297	\$1.492	Water Heat	Level E	Level E

APPENDIX B

RESIDENTIAL GAS RESULTS AND DATA INPUTS

Sgmt	Measure Number	Measure	Building Type	Total Therms	Therms Savings	Total Energy Savings Therms	Percent Therms Savings	Marginal Energy Cost \$/Therm Technical Potential	Marginal Energy Cost \$/Therm Achievable Potential	End Use Groups	Technical Potential Cost Group	Achievable Potential Cost Group
6	503	Solar Water Heater	PSE Gas New	248,263	71,982	273,416	52%	\$1.824	\$2.098	Water Heat	Level E	Level E
6	600	Base Clotheswasher (EF=1.18)	PSE Gas New	73,997	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
6	602	Energy Star Vertical-Axis Clothes Washer	PSE Gas New	27,390	46,607	46,607	63%	\$1.342	\$1.543	Appliances	Level E	Level E
6	601	Horizontal-Axis Clothes Washer	PSE Gas New	13,136	14,254	60,861	82%	\$5.064	\$5.824	Appliances	Level E	Level E
6	800	Base Dishwasher (EF=0.46)	PSE Gas New	44,398	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
6	801	Energy Star DW (EF=0.58)	PSE Gas New	35,823	8,575	8,575	19%	\$4.597	\$5.287	Appliances	Level E	Level E
6	900	Base Conventional Oven	PSE Gas New	108,923	0	0	0%	N/A	\$0.000	Appliances	N/A	N/A
6	901	Convection Oven	PSE Gas New	89,559	19,364	19,364	18%	\$1.586	\$1.823	Appliances	Level E	Level E