Peoples Gas and North Shore Gas Input Assumptions

Program	Measure	Gross Savings (Therms/Unit)	Savings Reference	Net to Gross Ratio		Net Savings (Therms/Unit)		Notes
				Peoples	North Shore	Peoples	North Shore	
Residential Prescriptive Program	Boilers ≥ 300 MBtu ≥ 85% TE	1,128.0	1	80%	80%	902.4	902.4	*500,000 Btu/hour Capacity, ~6500 HDD, 0.75 TE Baseline Efficiency*
Residential Prescriptive Program	Boilers ≥ 300 MBtu ≥ 90% TE	1,598.0	1	80%	80%	1,278.4	1,278.4	*500,000 Btu/hour Capacity, ~6500 HDD, 0.75 TE Baseline Efficiency*
Residential Prescriptive Program	Furnace ≤ 225 MBtu ≥ 92% AFUE	205.0	1	90%	70%	184.5	143.5	*75,000 Btu/hour capacity, ~1,400 EFLH, 78% AFUE Baseline Efficiency*
Residential Prescriptive Program	Furnace ≤ 225 MBtu ≥ 95% AFUE	241.0	1	90%	70%	216.9	168.7	*75,000 Btu/hour capacity, ~1,400 EFLH, 78% AFUE Baseline Efficiency*
Residential Prescriptive Program	Boiler Reset Controls	66.0	2	80%	80%	52.8	52.8	
Residential Prescriptive Program	Attic Insulation R-38	170.0	3	90%	80%	153.0	136.0	*baseline =R11 attic insulation, ~1700 sq.ft.*
Residential Prescriptive Program	Boilers ≤ 300 MBtu ≥ 90% AFUE	149.0	1	90%	70%	134.1	104.3	*75,000 Btu/hour capacity, ~1,400 EFLH, 80% AFUE Baseline Efficiency*
Residential Prescriptive Program	Boilers ≤ 300 MBtu ≥ 95% AFUE	211.0	1	90%	70%	189.9	147.7	*75,000 Btu/hour capacity, ~1,400 EFLH, 80% AFUE Baseline Efficiency*
Mutifamily Direct Install	Showerheads	21.0	9	95%	95%	20.0	20.0	
Mutifamily Direct Install	Aerators	5.0	5	95%	95%	4.8	4.8	
Mutifamily Direct Install	Pipe Insulation	13.0	5	95%	95%	12.4	12.4	
Mutifamily Direct Install	Programmable Thermostat	26.0	5	95%	95%	24.7	24.7	
Residential Existing Home Program	Per Home/Project	400.0	6	80%	80%	320.0	320.0	
Residential Behavioral Change Program	Per Participant	16.2	14	98%	98%	15.9	15.9	
CI Prescriptive Program	Boilers ≥ 300 MBtu ≥ 85% TE	1,128.0	1	80%	80%	902.4	902.4	*500,000 Btu/hour Capacity, ~6500 HDD, 0.75 TE Baseline Efficiency*
CI Prescriptive Program	Boilers ≥ 300 MBtu ≥ 90% TE	1,598.0	1	80%	80%	1,278.4	1,278.4	*500,000 Btu/hour Capacity, ~6500 HDD, 0.75 TE Baseline Efficiency*
CI Prescriptive Program	Furnace ≥ 92% AFUE	270.0	1	80%	80%	216.0	216.0	*100,000 Btu/hour capacity, ~6,000 HDD, 78% AFUE Baseline Efficiency*
CI Prescriptive Program	Furnace ≥ 95% AFUE	321.0	1	80%	80%	256.8	256.8	*100,000 Btu/hour capacity, ~6,050 HDD, 78% AFUE Baseline Efficiency*
CI Prescriptive Program	Programmable Thermostat	178.0	7	80%	80%	142.4	142.4	
CI Prescriptive Program	Gas Water Heater .62 EF	29.0	1	80%	80%	23.2	23.2	*Base Unit: 0.52 EF, water heating energy use indices as per US DOE CBECS for selected building types*
CI Prescriptive Program	Gas Water Heater .67 EF	57.0	1	80%	80%	45.6	45.6	*Base Unit: 0.52 EF, water heating energy use indices as per US DOE CBECS for selected building types*
CI Prescriptive Program	Steam trap repair/replacement	274.0	1	80%	80%	219.2	219.2	*average heating system efficiency of 75%; trap size ranges from 3/16" to 5/16"; 5 psig steam*
CI Prescriptive Program	Vent Dampers	60.0	9	80%	80%	48.0	48.0	
CI Prescriptive Program	Boiler tune-up	303.0	8	80%	80%	242.4	242.4	
CI Prescriptive Program	Boilers ≤ 300 MBtu ≥ 90% AFUE	220.0	9	80%	80%	176.0	176.0	
CI Prescriptive Program	Boiler Cutout/Reset Control	55.0	9	80%	80%	44.0	44.0	
CI Prescriptive Program	Unit Heater Condensing	266.0	1	80%	80%	212.8	212.8	*Base Unit: 100,000 Btu/hour, 78% AFUE, Condensing Efficiency of 92%; ~1700 EFLH*
CI Prescriptive Program	Energy Star Convection Oven	323.0	10	80%	80%	258.4	258.4	*Base Unit: 18,000 Btu/hour idle rate, 30% efficiency; Efficient Unit: ~13,000 Btu/hour idle rate, 44% efficiency*
CI Prescriptive Program	Energy Star Combination Oven	644.0	10	80%	80%	515.2	515.2	*Base Unit: 28,000 Btu/hour idle rate, 35% efficiency; Efficient Unit: 13,000 Btu/hour idle rate, 46% efficiency*
CI Prescriptive Program	Energy Star Fryer	505.0	10	80%	80%	404.0	404.0	*Base Unit: 14,000 Btu/hour idle rate, 35% efficiency; Efficient Unit: 9,000 Btu/hour idle rate, 50% efficiency*
CI Prescriptive Program	Infrared Upright Broiler	1,089.0	10	80%	80%	871.2	871.2	
CI Prescriptive Program	Infrared Charbroiler	661.0	10	80%	80%	528.8	528.8	
CI Prescriptive Program	Conveyer Oven	733.0	10	80%	80%	586.4	586.4	*Base Unit: 70,000 Btu/hour idle rate, 28% efficiency; Efficient Unit: 57,000 Btu/hour idle rate, 42% efficiency*
CI Prescriptive Program	Pasta Cooker	1,380.0	11	80%	80%	1,104.0	1,104.0	
CI Prescriptive Program	Infrared Rotisserie Oven	554.0	11	80%	80%	443.2	443.2	
CI Prescriptive Program	Infrared Salamander Broiler	239.0	11	80%	80%	191.2	191.2	
CI Prescriptive Program	Pre Rinse Sprayers	162.0	12	80%	80%	129.6	129.6	
CI Prescriptive Program	Energy Star Steamer	2,084.0	10	80%	80%	1,667.2	1,667.2	*Base Unit: 11,000 Btu/hour idle rate, 12% efficiency; Efficient Unit: 6,250 Btu/hour idle rate, 38% efficiency*
CI Custom Program	Per Custom Project	6,000.0	4	90%	90%	5,400.0	5,400.0	
CI Small Business Program	Steam trap repair/replacement	274.0	1	95%	95%	260.3	260.3	*average heating system efficiency of 75%; trap size ranges from 3/16" to 5/16"; 5 psig steam*
CI Small Business Program	Boiler tune-up	303.0	8	95%	95%	287.9	287.9	
CI Small Business Program	Boilers ≤ 300 MBtu ≥ 90% AFUE	220.0	9	80%	80%	176.0	176.0	
CI Small Business Program	Boiler Reset Control	55.0	9	95%	95%	52.3	52.3	
CI Small Business Program	Furnace ≥ 92% AFUE	270.0	1	80%	80%	216.0	216.0	*100,000 Btu/hour capacity, ~6,000 HDD, 78% AFUE Baseline Efficiency*
CI Small Business Program	Unit Heater Condensing	266.0	1	80%	80%	212.8	212.8	*Base Unit: 78% AFUE, Condensing Efficiency of 92%; ~1700 EFLH*
CI Small Business Program	Gas Water Heater .62 EF	29.0	1	80%	80%	23.2	23.2	*Base Unit: 0.52 EF, water heating energy use indices as per US DOE CBECS for selected building types*
CI Small Business Program	Programmable Thermostat	178.0	7	95%	95%	169.1	169.1	
CI Small Business Program	Pre Rinse Sprayers	162.0	12	95%	95%	153.9	153.9	
CI Small Business Program	Showerheads	21.0	9	95%	95%	20.0	20.0	
CI Small Business Program	Aerators	5.0	5	95%	95%	4.8	4.8	
CI Small Business Program	Furnace Tune-Up 110-250 MBtu	62.7	13	95%	95%	59.6	59.6	
CI Retro Commissioning	Per Building/Project	17,400.0	13	80%	80%	13,920.0	13,920.0	

Savings References:

1.) Calculated using generally accepted energy engineering practice

2.) Savings estimated at 5% of annual usage for 75,000 Btu/hour unit with 1,400 EFLH and a 0.8 Baseline Efficiency

3.) Calculated by AEG using Residential Building Simulation software

4.) Estimated average participant based on reported Custom gas efficiency projects, Minnesota Energy Resources Corporation, 2007-2009

5.) MEEA IL: Midwest Energy Efficiency Alliance, *Illinois Residential Market Analysis*

6.) US Environmental Protection Agency and US Department of Energy, Home Performance with Energy Star, Fact Sheet, Potential Savings, for the Midwest climate zone

7.) Based on deemed savings reported in the Michigan Energy Savings Database, weather adjusted.

8.) Based on 4.3% Savings of a 500,000 Btu/hour unit with 0.75 TE using 7,050 therms per year.

9.) Navigant Consulting Inc, *Minnesota Gas Energy Efficiency Potential* . 2009.

10.) Fishnick: Food Technology Service Center, Technology Assessment.

11.) Minnesota Deemed Savings: Minnesota Office of Energy Security, *Conservation Incentives Program Deemed Savings Database*

12.) Initial value from Consortium for Energy Efficiency, adjusted for 3 hour usage per day with 1.9 gallons/minute baseline and 1.6 gallon/minute efficient unit

13.) Based on actual project experience from Commonwealth Edison DSM Programs

14.) Based on results obtained from current Home Energy Reports programs offered by SMUD, Puget Sound, CenterPoint Energy and National Grid.