smart-e loan



Smart-E Measures	Technical Standards
Health & Safety	
Asbestos Abatement (including vermiculite)	
Mold Remediation	
Home Performance/ Efficiency*	
Air Sealing	
Attic Insulation	Ceiling starting R-Value must be \leq R19, upgrade to \geq R38
Duct Sealing	
Energy Efficient Zone Heating Controls	Please contact CGB for technical standards
Energy Efficient Lighting Systems	Must be LED lighting
Floor Insulation	Floor between conditioned and unconditioned space (e.g. basement, garage); starting R-value must be \leq R6, upgrade to \geq R19
Wall insulation	Wall starting R-value must be \leq R4, upgrade to \geq R13. No below grade walls or interior walls.
Windows - Replacement	ENERGY STAR, double pane, U-factor ≤ 0.27. Not for unconditioned spaces
	Heating and Cooling*
Air Source Heat Pump	≥16 SEER, ≥9.5 HSPF, and 60% Heating Capacity Ratio, AHRI Certified
Biomass (Furnace or Boiler)	ASME Certified, 85% AFUE, Fully Automated
Central Air Conditioning	Split System: ENERGY STAR, 16 SEER, 12.5 EER
Ductless Mini-Split Heat Pump	Single Zone: ≥18 SEER, ≥10 HSPF, 58% Heating Capacity Ratio, AHRI Certified
	Multi-Indoor Units: ≥16 SEER, 9.5 HSPF, 58% Heating Capacity Ratio, AHRI Certified
ECM Boiler Circulator Pump	Installed on any fuel boiler
Ground Source Heat Pump	GLHP Closed Loop Water to Air 17.1 EER, 3.6 COP
	DX Direct Expansion Refrigerant 16.0 EER, 3.6 COP
	Water to Water 16.1 EER, 3.1 COP
Hot Water Boiler - Natural Gas	ENERGY STAR, 90% AFUE with temperature reset or purge control
Hot Water Boiler - Oil	ENERGY STAR, 87% AFUE with temperature reset or purge control
Hot Water Boiler - Propane	ENERGY STAR, 90% AFUE with temperature reset or purge control
Natural Gas Conversion - Burner	
Natural Gas Conversion - CIAC	Contributions in Aid of Construction
Steam Boilers - all fuels	82% AFUE
Warm Air Furnace - Natural Gas	ENERGY STAR, AHRI rated 90% - 94% AFUE, Performance EAE of 2% or lower
Warm Air Furnace - Natural Gas - High Efficiency	ENERGY STAR, AHRI rated 95% AFUE, Performance EAE of 2% or lower

Smart-E Measures	Technical Standards	
Heating and Cooling (continued)		
Warm Air Furnace - Propane	ENERGY STAR, AHRI rated 95% AFUE, Performance EAE of 2% or lower	
Warm Air Furnace - Oil	ENERGY STAR, AHRI rated 85% AFUE	
Weather Responsive Controls - Natural Gas		
Weather Responsive Controls - Oil		
Weather Responsive Controls - Propane		
Water Heating*		
Heat Pump Water Heater	ENERGY STAR, Energy Factor ≥ 3.0	
Indirect Water Heater - Natural Gas	Attached to ENERGY STAR boiler of \geq 90% AFUE	
Natural gas storage or condensing water heater	ENERGY STAR, Thermal Efficiency ≥ 0.95	
On-Demand Tankless Water Heater - Natural Gas	ENERGY STAR, Energy Factor ≥ 0.94 with electronic ignition	
On-Demand Tankless Water Heater - Propane	ENERGY STAR, Energy Factor ≥ 0.82	
Renewables*		
Electric Vehicle Recharging Station	Level 1 or Level 2, commercially available charging station	
Micro CHP	Please contact CGB for technical standards	
Micro Fuel Cell	Please contact CGB for technical standards	
Natural Gas Vehicle Refueling Station	Please contact CGB for technical standards	
Smart Meters	Please contact CGB for technical standards	
Solar Hot Water Heater	Please contact CGB for technical standards	
Solar Photovoltaic Battery Back-up	Please contact CGB for technical standards	
Solar Photovoltaic Islanding Inverters	Please contact CGB for technical standards	
Solar Photovoltaic System	Please contact CGB for technical standards	
Other: Related Energy Measures Total cost cannot exceed 25% of loan amout		
Other: Electric service upgrade		
Other: ENERGY STAR appliances		
Other: Lead abatement		
Other: Knob & Tube removal		
Other: Roof repair (must be done in conjunction with a solar or attic or wall insulation project)		
Other: Structural remediation		
Other: Tree removal (must be done in conjunction with a solar project)		
Other: Unlisted but relevant to improving the energy performance of a home		

* Rebates may be available. Please consult with your contractor

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