

smart-e loan

Smart-E Measures	Technical Standards
Heating and Cooling	
Air Source Heat Pump	≥15.2 SEER2 and ≥8.1 HSPF2 and AHRI Certified
Biomass (Furnace or Boiler)	ASME Certified, 85% AFUE, Fully Automated
Central Air Conditioning	≥16 SEER and ≥12.5 EER or ≥15.3 SEER2 and ≥12 EER; ENERGY STAR and AHRI Certified
Ductless Mini-Split Heat Pump	Single and multi-zones: ≥ 15.2 SEER2, ≥ 8.5 HSPF2, and 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 Certified 90% - 94% AFUE
Warm Air Furnace – Natural Gas – High Efficiency	ENERGY STAR, AHRI Certified 95% AFUE
Warm Air Furnace – Propane	ENERGY STAR, AHRI Certified 95% AFUE
Warm Air Furnace – Oil	ENERGY STAR, AHRI Certified 85% AFUE
Weather Responsive Controls – Natural Gas	
Weather Responsive Controls – Oil	
Weather Responsive Controls – Propane	
Elevate or relocate electrical of HVAC service equipment	
Install unions, fittings, and valves to HVAC service equipment	
Energy Efficiency Zone Heating Controls	Contact the Connecticut Green Bank for technical standards
Solar	
Solar photovoltaic systems (includes solar shingles)	
Solar PV islanding inverters	
Roofing	
FORTIFIED roof	
Roof repairs	Must be done in conjunction with solar, FORTIFIED roof, attic, or wall insulation project
Other Renewables	
Micro CHP	
Micro Fuel Cell	

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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
Solar hot water heater	
Battery storage	
Battery storage	
Elevate or relocate service equipment	
Install electric subpanel for critical utilities on backup power	
EV charging stations	
Health & Safety	
Asbestos abatement (including vermiculite)	Must be done in conjunction with one of the following: a related eligible measure, HES audit (within 1 year or scheduled), or recent HVAC/water related repair or installation
Mold remediation	Must be done in conjunction with one of the following: a related eligible measure, HES audit (within 1 year or scheduled), or recent HVAC/water related repair or installation
Repair leaking plumbing	
Replace in-home lead or copper water pipes	
Insulation	
Walls	Wall starting R-value must be $\leq R4$, upgrade to $\geq R13$. No below grade walls or interior walls.
Floors	Floor between conditioned and unconditioned space (e.g. basement, garage); starting R-value must be $\leq R6$, upgrade to $\geq R19$
Attic	Ceiling starting R-Value must be $\leq R19$, upgrade to $\geq R38$
Air sealing	
Duct sealing	
Windows	
Replacement	ENERGY STAR rated, U-factor ≤ 0.22 . Not for unconditioned spaces.
High impact glass	
Storm shutters	
Install floodproof basement windows	Install per local building code
Septic	
Repairs to or replacement of existing	
Connecting to public sewer	

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Floodproofing	
Basement windows	
Vents for foundation walls, garages	
Replace flooring and wall coverings	
Install sump pump, seals and locks	
Repoint deteriorated mortar in basement walls and around windows	
Install French drains	
Apply Wall Sealant	
Install seal wall penetrations	
Install wall and floor membranes	
Wells	
Repairs to or replacement of existing systems	
Connecting to public water	
Well repairs, relocation, over drilling, redrilling, pumps and other equipment	
Water treatment and filtration	
Landscaping	
Replace impervious surfaces	
Plant native and/or shade trees (or remove dead trees)	
Tree removal (must be done in conjunction with a solar project)	
Resilience	
FORTIFIED roofing	
Dams	
Removal of dead trees	
Battery storage	
High impact glass windows or storm shutters	
Electric service upgrades	
Elevate or relocate all water/plumbing service equipment	
Install unions, fittings, and/or valves to water/plumbing service equipment	
Repair any leaking internal or external pipes	
Replace in-home lead or copper water pipes	
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Other Related Energy Measures Total cost cannot exceed 25% of loan	
Structural remediation	
Unlisted repairs that are connected to other projects	
Energy Star appliances	
Heat pump dryers	ENERGY STAR rated
Tree Removal related to solar installations	
Knob & tube removal	
Lead abatement & lead water pipe replacement	
WaterSense Plumbing fixture replacement and upgrade - toilet, showerhead, faucets	
Energy Efficient LED lighting system	

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