



Smart-E Measures	Technical Standards
Health, Safety, & Resiliency*	
Asbestos Abatement (including vermiculite)	Please contact IPC for standards.
ENERGY STAR Cool Roofs	Low Slope $\leq 2/12$, Initial Solar Reflectance ≥ 0.65 , 3-Year Solar Reflectance ≥ 0.50 Steep Slope $> 2/12$, Initial Solar Reflectance ≥ 0.25 , 3-Year Solar Reflectance ≥ 0.15
Mold Remediation	Please contact IPC for standards.
Whole Home Generator	Must be EPA compliant
Home Performance/ Efficiency*	
Air Sealing	Blower-door guided air sealing
Ceiling Insulation	Starting R-Value must be $\leq R11$, upgrade to $\geq R30$
Duct Sealing	blower door and duct pressurization, post-CFM values $\leq 10\%$ of total fan flow.
Energy Efficient Zone Heating Controls	Please contact IPC for standards.
Energy Efficient Lighting Systems	Must be LED lighting
Floor Insulation	$\leq R-22$, upgrade to R-30
Wall insulation	Starting from $\leq R11$ to $> R19$
Windows - Solar screens	Solar screen installation
Windows - Replacement	U Factor Btu ≤ 0.30 ; SHGC ≤ 0.25
Heating and Cooling*	
Air Source Heat Pump	15 SEER, 11.8 EER and above, 8.2 HSPF and above
Biomass (Furnace or Boiler)	ASME Certified, 85% AFUE, Fully Automated
Central Air Conditioning	15 SEER, 11.8 EER and above
Combination Boiler	Water heating: 0.87 UEF or greater; space heating: 92% AFUE or greater
Evaporative Cooling	Saturation Effectiveness $> 85\%$
Ductless Mini-Split Heat Pump	16 SEER; 9 HSPF
ECM Boiler Circulator Pump	Installed on any boiler
Ground Source Heat Pump	Open Loop: ≥ 3.6 COP, ≥ 16.2 EER
	Closed Loop: ≥ 3.3 COP, ≥ 14.1 EER
	Direct Expansion: ≥ 3.5 COP (Heating), ≥ 15.0 EER (Cooling)
High Efficiency Boiler - Natural Gas and Propane	ENERGY STAR, 95% AFUE
High Efficiency Boiler - Oil	ENERGY STAR, 87% AFUE
High Efficiency Furnace - Natural Gas and Propane	ENERGY STAR, 92% AFUE
High Efficiency Furnace - Oil	ENERGY STAR, 85% AFUE
Natural Gas Conversion - Burner	
Natural Gas Conversion - Cost to connect	
Steam Boilers - all fuels	82% AFUE
Weather Responsive Controls	
Water Heating*	
Heat Pump Water Heater	Energy Star rated, UEF ≥ 2.8 and FHR of 45
Natural gas storage or condensing water heater	ENERGY STAR, UEF $\geq .73$
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 ≥ 0.92
Renewables*	
Electric Vehicle Recharging Station	Level II EV charger
Micro CHP	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Micro Fuel Cell	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Smart Meters	ENERGY STAR
Solar Hot Water Heater	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Solar Photovoltaic Battery Back-up	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Solar Photovoltaic Islanding Inverters	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Solar Attic Fans	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.
Rooftop Solar Photovoltaic	Proof of incentive. In case of no eligible incentives, case by case -- review by Smart-E team. Based on power production.

Other: Related Energy Measures*Total cost cannot exceed 25% of loan amount*

Other: Electric service upgrade	Up to code
Other: ENERGY STAR appliances	Refrigerators, ovens, dish washer, clothes washers, swamp coolers, etc
Other: Lead abatement	Please contact IPC.
Other: Knob & Tube removal	Please contact IPC.
Other: Roof repair	Must be done in conjunction with a solar or attic or wall insulation project
Other: Air filtration for air quality	Please contact IPC.
Other: Structural remediation	Please contact IPC.
Other: Tree removal	Must be done in conjunction with a solar project
Other: Unlisted but relevant to improving the energy performance, safety, or resiliency of a home	Please contact IPC.
Other: Water efficiency measures	Please contact IPC.
* Rebates may be available. Please consult with your contractor	v09222