

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 gas / propane
Home Performance / Efficiency*	
Air Sealing	Blower-door guided air sealing
Ceiling Insulation	Starting R-Value must be $\leq R11$, upgrade to $\geq R38$
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	Starting R-Value must be $\leq R-22$, upgrade to $\geq R-30$
Wall insulation	Starting R-Value must be $\leq R11$, upgrade to $\geq R19$
Solar screen installation	Eligible solar screen fabric must have a solar heat gain coefficient (SHGC) ≤ 0.40
Windows - Replacement	ENERGY STAR Rated for Appropriate Climate Zone, U-Factor Btu ≤ 0.30 ; SHGC ≤ 0.4
Heating & Cooling*	
Air Source Heat Pump	≥ 16 SEER, ≥ 12 EER, ≥ 9 HSPF OR ≥ 15.2 SEER2, ≥ 11.5 EER, ≥ 7.6 HSPF
Biomass (Furnace or Boiler)	ASME Certified, $\geq 85\%$ AFUE, Fully Automated
Central Air Conditioning	≥ 15 SEER, ≥ 11.8 EER OR ≥ 14.3 SEER2, ≥ 11.3 EER
Combination Boiler	Water heating: ≥ 0.87 UEF; Space heating: $\geq 92\%$ AFUE
Evaporative Cooling	Saturation Effectiveness $> 85\%$
Ductless Mini-Split Heat Pump	≥ 16 SEER, ≥ 9 HSPF OR ≥ 15.2 SEER2, ≥ 7.6 HSPF
ECM Boiler Circulator Pump	Installed on any boiler
Ground Source Heat Pump	Open Loop: ≥ 3.6 COP, ≥ 16.2 EER OR ≥ 3.6 COP, ≥ 15.8 EER
	Closed Loop: ≥ 3.3 COP, ≥ 14.1 EER OR ≥ 3.6 COP, ≥ 13.6 EER
	Direct Expansion: ≥ 3.5 COP, ≥ 15.0 EER OR ≥ 3.5 COP, 14.4 EER
High Efficiency Boiler - Natural Gas and Propane	ENERGY STAR, $\geq 95\%$ AFUE
High Efficiency Boiler - Oil	ENERGY STAR, $\geq 87\%$ AFUE
High Efficiency Furnace - Natural Gas and Propane	ENERGY STAR, $\geq 92\%$ AFUE
High Efficiency Furnace - Oil	ENERGY STAR, $\geq 85\%$ AFUE
Natural Gas Conversion - Burner	
Natural Gas Conversion - Cost to connect	
Steam Boilers - all fuels	$\geq 82\%$ AFUE
Weather Responsive Controls	

Water Heating*	
Heat Pump Water Heater	ENERGY STAR, UEF \geq 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 \geq 0.94 with electronic ignition
On-Demand Tankless Water Heater - Propane	ENERGY STAR, Energy Factor \geq 0.92
Renewables*	
Electric Vehicle Recharging Station	Level II EV charger
Micro CHP	Proof of incentive. If no eligible incentives, case by case review by Smart-E team. Based on power production.
Micro Fuel Cell	Proof of incentive. If 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. If no eligible incentives, case by case review by Smart-E team. Based on power production.
Solar Photovoltaic Battery Back-up	Proof of incentive. If no eligible incentives, case by case review by Smart-E team. Based on power production.
Solar Photovoltaic Islanding Inverters	Proof of incentive. If no eligible incentives, case by case review by Smart-E team. Based on power production.
Solar Attic Fans	Proof of incentive. If no eligible incentives, case by case review by Smart-E team. Based on power production.
Rooftop Solar Photovoltaic	Proof of incentive. If 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 PV or attic/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 PV 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.