

Smart-E Measures	Technical Standards
<b>Health, Safety, &amp; Resiliency*</b>	
Asbestos Abatement (including vermiculite)	Please contact IPC for standards.
ENERGY STAR Cool Roofs	Low Slope $\leq 2/12$ , Initial Solar Reflectance $\geq 0.65$ , 3-Year Solar Reflectance $\geq 0.50$ Steep Slope $> 2/12$ , Initial Solar Reflectance $\geq 0.25$ , 3-Year Solar Reflectance $\geq 0.15$
Mold Remediation	Please contact IPC for standards.
Whole Home Generator	Must be EPA compliant gas/ propane
<b>Home Performance/ Efficiency*</b>	
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	$\leq R-22$ , upgrade to R-30
Wall insulation	Starting from $\leq R11$ to $\geq R19$
Solar screen installation	Eligible solar screen fabric must have a heat gain coefficient (SHGC) of 0.40 or lower.
Windows - Replacement	Energy Star Rated for Appropriate Climate Zone, U Factor Btu $\leq 0.30$ ; SHGC $\leq 0.4$
<b>Heating and Cooling*</b>	
Air Source Heat Pump	16 SEER, 12 EER and above, 9 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: $\geq 3.6$ COP, $\geq 16.2$ EER
	Closed Loop: $\geq 3.3$ COP, $\geq 14.1$ EER
	Direct Expansion: $\geq 3.5$ COP (Heating), $\geq 15.0$ 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	
<b>Water Heating*</b>	
Heat Pump Water Heater	Energy Star rated, 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 $\geq 0.92$
<b>Renewables*</b>	
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.
<b>Other: Related Energy Measures</b>	
<i>Total cost cannot exceed 25% of loan amount</i>	

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 contract IPC.
* Rebates may be available. Please consult with your contractor	v09222