



Arkansas Advanced Energy Equity Program

Eligible Energy Efficiency Products

Air Sealing and Weatherization		<p>Contractors should follow the Building Performance Institute ("BPI") standards, Energy Star guidelines and/or ASHRAE 62.2-7 2007 Ventilation Standards for air sealing and weatherization.</p> <p>It is mandatory that air sealing levels are measured by a blower door test before and after improvements are made. A copy of the blower door test results (CFM50) before and after improvements are installed must be included with the Completion Certificate. Mechanical ventilation should be installed if natural ventilation is below the minimum levels specified in ASHRAE 62.2-7 2007 Ventilation Standards.</p>	10 years
Insulation	Attic	Energy Star labeled and R-30 minimum required in open attic; cathedral ceilings will vary.	20 years
	Wall	Energy Star labeled and R-19 minimum, or fill wall cavity (e.g., for 2x4, R-13 will fill wall cavity)	20 years
	Floor (over unconditioned space)	Energy Star labeled and R-19 minimum	20 years
	Perimeter (foundation)	R-10 minimum	20 years
	Ducts (in unconditioned space)	R-6 minimum	20 years
	Reflective Insulation and Radiant Barriers	Foil type radiant barriers are recommended. Ventilation and moisture control requirements should be considered.	20 years
Cool Roof and Wall Systems	Cool Roof	<ol style="list-style-type: none"> Roofing products including liquid coatings must comply with all mandatory measures. The roofing products manufacturer must have its roofing product listed in the CRRC's Rated Product Directory (see http://www.coolroofs.org) OR, for steep sloped roofs only, be an approved Above-Sheathing Ventilation (ASV) metal roofing product whose manufacturer has provided sufficient evidence of energy savings equivalent to the minimum solar reflectance and thermal emissivity requirements set forth below. Roofing products must at a minimum meet the following solar reflectance and thermal emissivity requirements. In the case of liquid roofing products, the overall final roof assembly or surface, with the product applied, must meet these requirements: 	20 years

		<table border="1"> <tr> <td>steep sloped applications</td> <td>Initial*</td> <td>Aged*</td> </tr> <tr> <td>minimum solar reflectance</td> <td>0.25</td> <td>0.2</td> </tr> <tr> <td>minimum thermal emittance</td> <td>0.75</td> <td>0.75</td> </tr> <tr> <td>low sloped applications</td> <td>Initial*</td> <td>Aged*</td> </tr> <tr> <td>minimum solar reflectance</td> <td>0.65</td> <td>0.5</td> </tr> <tr> <td>minimum thermal emittance</td> <td>0.75</td> <td>0.75</td> </tr> </table> <p>3. Any project involving roofing may be subject to additional code compliance requirements. The project stakeholder is fully and solely responsible to meet any such additional requirements. **"Initial" is the score for that product when it is newly installed. "Aged" is the score for that product after it has been installed on the roof for three years.</p>	steep sloped applications	Initial*	Aged*	minimum solar reflectance	0.25	0.2	minimum thermal emittance	0.75	0.75	low sloped applications	Initial*	Aged*	minimum solar reflectance	0.65	0.5	minimum thermal emittance	0.75	0.75	
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	Cool Wall	Cool Wall Products must meet the following specifications in order to be eligible for A2E2 financing. Only Cool Wall products approved by A2E2 will be eligible for financing.	20 years																		
Space Heating, Ventilation, and Air Conditioning (HVAC)	Programmable Thermostat	Shipped with a default energy saving program that is capable of maintaining two separate programs (to address the different comfort needs of weekdays and weekends) and four temperature settings or more for each day.	15 years																		
	Duct Sealing	A HERS test is required for duct replacement or repair. A copy of the CF6R Form will be required as part of the Completion Certificate. Total CFM leakage should be less than 6%. Contractors should follow Energy Star guidelines.	20 years																		
	Boiler	On Energy Star Qualified list (≥ 85% AFUE).	20 years																		
	High Efficiency Furnace	On Energy Star Qualified list: Natural Gas or Propane (≥ 90% AFUE).	15 years																		
	Whole House Fan	Must be included on the Edison Qualifying Product List.	20 years																		
	Attic Fan	Fan must have controls (thermostat). Fan opening must be properly insulated and sealed in winter. Solar-powered fans are allowed.	15 years																		
	Ceiling Fan	Must be on Energy Star Qualified list.	10 years																		
	Other Ventilating Fans	<p>On Energy Star Qualified list.</p> <table border="1"> <thead> <tr> <th>Airflow (cfm)</th> <th>Minimum Efficacy (in cubic feet of airflow per minute per watt (cfm/W))</th> </tr> </thead> <tbody> <tr> <td>Range Hoods – up to cfm (max)</td> <td>2.8</td> </tr> <tr> <td>Bathroom and Utility Room Fans – 10 to 89 cfm</td> <td>1.4</td> </tr> </tbody> </table>	Airflow (cfm)	Minimum Efficacy (in cubic feet of airflow per minute per watt (cfm/W))	Range Hoods – up to cfm (max)	2.8	Bathroom and Utility Room Fans – 10 to 89 cfm	1.4	10 years												
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	Bathroom and Utility Room Fans – 90 to 500 cfm (max)	2.8	
	In-Line (single-port & multi-port) Fans	2.8	
Air Source Heat Pumps	On Energy Star Qualified and AHRI lists: <ul style="list-style-type: none"> Split systems: ≥ 8.2 HSPF, ≥ 12 EER and ≥ 14.5 SEER Packaged systems: ≥ 8 HSPF, ≥ 11 EER and ≥ 14 SEER <p>The AHRI Number for the system must be provided to ensure the system meets Energy Star and AHRI minimum values.</p>		15 years
Ground Source Heat Pumps	On Energy Star Qualified list: <p><u>As of January 1, 2011:</u></p> <ul style="list-style-type: none"> Closed Loop (water to air): ≥ 16.1 EER and ≥ 3.5 COP Open Loop (water to air): ≥ 18.2 EER and ≥ 3.8 COP Closed Loop (water to water): ≥ 15.1 EER and ≥ 3.0 COP Open Loop (water to water): ≥ 19.1 EER and ≥ 3.4 COP DGX (Direct Expansion): ≥ 16.0 EER and ≥ 3.6 COP <p><u>As of January 1, 2012:</u></p> <ul style="list-style-type: none"> Closed Loop (water to air): ≥ 17.1 EER and ≥ 3.6 COP Open Loop (water to air): ≥ 21.1 EER and ≥ 4.1 COP Closed Loop (water to water): ≥ 16.1 EER and ≥ 3.1 COP Open Loop (water to water): ≥ 20.1 EER and ≥ 3.5 COP DGX (Direct Expansion): ≥ 16.0 EER and ≥ 3.6 COP 		15 years
Radiant Heating and Cooling (floor, wall, and ceiling)	Radiant systems must be powered by a qualified heat pump (electric or gas-fired, or ground-source), efficient gas boiler, or solar system (not by electric resistance).		15 years
Central Air Conditioner	On Energy Star Qualified and AHRI lists: <ul style="list-style-type: none"> Split systems: ≥ 12 EER and ≥ 14.5 SEER Packaged systems: ≥ 11 EER and ≥ 14 SEER <p>Replacement of existing system only. No new cooling</p>		15 years

		<p>systems.</p> <p>The AHRI Number for the system must be provided to ensure the system meets Energy Star and AHRI minimum values.</p>	
	Evaporative Cooler	<p>Must be permanently installed through the wall or on the roof. Window installed evaporative coolers are not eligible.</p> <p>Must have separate ducting system— independent of the air conditioning and heating duct system.</p> <p>Can be single stage or two stage system that:</p> <ol style="list-style-type: none"> 1. Has UL recognized electrical components; 2. Comes with a water quality management system that provides positive removal of sump water on a regular interval (a bleed system is not allowed); 3. Have a single duct or multi ducted distribution system; 4. Have either: <ol style="list-style-type: none"> a. A multi-function manual control switch, which offers high and low fan speed, pump on or off and the unit control of on or off; or b. A thermostat specifically designed for evaporative coolers, which automatically control the unit operation based on the indoor temperature, fan speed, and pump operation. The automatic thermostat must be mounted remotely from the cooler. Pressure relief dampers are required. 	10 years
	ECM Motor	The ECM (Electronically Commutated Motor) or frictionless fan motor may not be financed for longer than the remaining useful life of the forced air unit in which it is installed in.	10 years
Water Heating	Gas Condensing Water Heater	On Energy Star Qualified list or ≥ 0.8 EF	10 years
	Natural Gas Storage Water Heater	On Energy Star Qualified list: (≥ 0.67 EF)	10 years
	Tankless (Demand) Water Heater	On Energy Star Qualified list (≥ 0.82 EF)	20 years
	Electric Heat Pump Water Heater	On Energy Star Qualified list (≥ 2.0 EF)	15 years
Windows, Skylights, and Doors		Energy Star labeled (≤ 0.35 U Factor and ≤ 0.30 SHGC)	
	Exterior Windows	Replacement windows only; no newly created windows. A copy of the NFRC label will be required with the Completion Certificate.	20 years

	Doors	<p>Energy Star labeled:</p> <ul style="list-style-type: none"> • Opaque ≤ 0.21 U Factor and no required rating for SHGC, • $\leq \frac{1}{2}$-lite ≤ 0.27 U-Factor and ≤ 0.30 SHGC • $\frac{1}{2}$-lite $\leq .32$ U-Factor and ≤ 0.30 SHGC <p>A copy of the NFRC label will be required with the Completion Certificate.</p>	20 years
	Skylights	<p>Energy Star labeled (U Factor ≤ 0.57 and SHGC ≤ 0.30)</p> <p>Replacement skylights only, no new skylights.</p> <p>A copy of the NFRC label will be required with the Completion Certificate.</p>	20 years
	Window Film	<p>Spectrally selective window films. $\geq 70\%$ visible light transmission recommended.</p> <p>Must provide NFRC label or product sheet with the Completion Certificate.</p>	10 years
Pool Equipment	High Efficiency Pool Circulating Pump and Motor	<p>Replace existing pool pump and motor with energy-efficient variable-speed pool pump on a single family residence pool.</p> <p>It is recommended that pump motor be premium rated efficiency (NEMA).</p> <p>May include add on of efficient pool filter which does not use backwashing. Proof of efficiency/no backwashing must be provided.</p>	10 years
	Natural Gas Pool Heater	On Palm Desert Set to Save Qualifying Product List (Thermal efficiency $\geq 84\%$)	10 years
Lighting Measures	Indoor Fixtures	On Energy Star Qualified list. Must be permanently installed.	10 years