



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

July 26, 2013

Dear ENERGY STAR® Partners and Stakeholders:

The U.S. Environmental Protection Agency (EPA) is pleased to share both an update on ENERGY STAR Most Efficient 2013 and proposed ENERGY STAR Most Efficient 2014 criteria across 11 product categories. Stakeholders are invited to provide written comments on these proposed requirements no later than **Friday, September 6, 2013**.

ENERGY STAR Most Efficient 2013

While still in a very early stage of implementation, ENERGY STAR Most Efficient saw some important advances in 2013. Interest among energy efficiency program sponsors continues to grow. In the first half of this year, eleven utility efficiency program sponsors serving approximately 28 million residential customers featured ENERGY STAR Most Efficient 2013 in their residential program offerings, reflecting a doubling in efficiency program sponsor participation from 2012. These programs feature one or more of the product categories covered by ENERGY STAR Most Efficient 2013 and reflect a diverse geographic spread. In addition, ten more program sponsors from different regions have indicated interest in using the recognition levels and graphic in programs where they promote products at various efficiency levels. Retail support appears to be expanding as well. Through recent in-store assessments, EPA found the ENERGY STAR Most Efficient graphic featured at major appliance retail chains, including Best Buy, The Home Depot, Lowes and Sears, most typically in association with clothes washers.

In the fall of 2012, the Consortium for Energy Efficiency's annual ENERGY STAR household survey found that 64% of households who had seen or heard about ENERGY STAR Most Efficient would buy a product because it had the designation. The Agency supported partner interest in capitalizing on this demand with the development of sales associate training materials that can be found at www.energystar.gov/training/appliances/. In 2013, EPA is also continuing to improve ENERGY STAR Most Efficient product lists, to better serve consumers and partners in their search for recognized models. The Agency is also assessing and working individually with retailers to broaden availability of the select group of models achieving recognition.

As of July 2013, **1335 models from 119 ENERGY STAR partners** meet the ENERGY STAR Most Efficient 2013 eligibility criteria. Each of these categories has experienced some growth in 2013 with Televisions showing the largest growth from 35 to 151 models as discussed later in this letter. The number of models and manufacturers per category is noted in the following table.

Product Category	Models	ENERGY STAR Partners
Boilers	42	10
Ceiling Fans	38	12
Central Air Conditioners and Air Source Heat Pumps	91	8
Clothes Washers	50	8
Computer Monitors	35	15
Furnaces	93	6

Product Category	Models	ENERGY STAR Partners
Geothermal Heat Pumps	235	6
Refrigerators	91	10
Televisions	151	16
Ventilating Fans	165	6
Windows	344	40

2014 Product Categories and Recognition Criteria

For 2014, EPA and the U.S. Department of Energy (DOE) intend to maintain the current 11 product categories eligible for ENERGY STAR Most Efficient recognition: Air Source Heat Pumps and Central Air Conditioners, Boilers, Ceiling Fans, Clothes Washers, Computer Monitors, Furnaces, Geothermal Heat Pumps, Refrigerator-Freezers, Televisions, Ventilation Fans, and Residential Windows.

The proposed recognition criteria for 2014 were developed based on an analysis of currently qualified ENERGY STAR models, which indicates that for most categories existing recognition criteria remain reflective of the “best of the best.” As a result, EPA proposes to extend the 2013 efficiency criteria into 2014 for all categories except televisions, which experienced more pronounced advances in the market. The rationale for this change is outlined below, along with proposed refinements to certain aspects of the HVAC and refrigerator-freezer criteria.

Televisions

When the ENERGY STAR Most Efficient 2013 Television criteria were finalized, approximately 35 models could meet these criteria, representing about 5% of the market. At this time, that model count has grown to 151 models, representing approximately 11% of the market. As of July 2013, the proposed criteria for 2014 would recognize 30 models across various sizes.

Heating and Cooling Products

While changes to the efficiency criteria for the heating and cooling suite of products are not proposed, revisions to the communications-related requirements are being introduced. In particular, the system status, communications and automatic setup requirements for Furnaces, Central Air Conditioners, and Heat Pumps have been updated to be more specific, and more closely related to energy savings. Since the launch of the ENERGY STAR Most Efficient pilot in 2010, EPA is pleased to see that these nascent features have been tested with consumers, evolved, and became more widely available. With three years of product information, along with conversations with manufacturers, researchers and HVAC installers in hand, EPA and DOE are in a position to propose refinements to the requirements that will offer manufacturers greater certainty about which systems meet them, and will also streamline the approval process considerably.

Refrigerator-Freezers

In light of the upcoming test procedure change, the 2014 requirements for refrigerator-freezers are expressed in terms of both the current as well as the amended DOE test procedure. Products certified under either the Version 4.1 or Version 5.0 specification effective in September 2014 will be recognized. The requirements for products certified under Version 4.1 are unchanged from 2013. EPA is proposing that products certified under Version 5.0 use at least 15% less energy than the 2014 Federal standard. Consistent with past ENERGY STAR Most Efficient Refrigerator-freezer criteria, the Agency is also proposing a new maximum annual energy use level.

The proposed 2014 ENERGY STAR Most Efficient criteria for the full suite of products are summarized on the next page. In addition to meeting these performance requirements, products must be certified as ENERGY STAR by an EPA-recognized certification body. Additional detail for each product category is included in the requirements documents accompanying this letter.

Category	Requirements		
Boilers*	Gas Powered Boilers: 95 AFUE or higher; Oil Powered Boilers: 90 AFUE or higher		
Ceiling Fans*	Efficiency (cubic feet per min/W) ≥170 high speed, ≥270 medium speed, ≥400 low speed		
Clothes Washers*	Clothes Washer Volume	MEF	WF
	≤ 2.5 cubic feet	≥ 2.4	≤ 4.5
	> 2.5 cubic feet	≥ 3.2	≤ 3.0
Central Air Conditioners*	≥18 SEER & 12.5 EER for split CAC, 16 SEER & 12 EER for packaged CAC; automatic setup, monitoring, and service messaging capabilities		
Air-Source Heat Pumps*	≥18 SEER, 12.5 EER, & 9.6 HSPF for split systems; 16 SEER, 12 EER & 8 HSPF for packaged systems; automatic setup, monitoring, and service messaging capabilities		
Ductless AC and Heat Pumps*	≥20 SEER & 12.5 EER and (for heat pumps) 9.6 HSPF; filter check and service needed alerts		
Computer Monitors*	$P_{max} = (6 * r) + (0.032 * A) - 3.800$ Where: P _{max} = maximum allowable On Mode Power consumption in watts r = screen resolution in megapixels A = viewable screen area of the product in square inches		
Furnaces*	≥97% AFUE; automatic setup, monitoring, and service messaging capabilities		
Geothermal Heat Pumps*	Equivalent to Tier 3 levels established in the ENERGY STAR Program Requirements; automatic setup, monitoring, and service messaging capabilities		
Refrigerator-Freezers*	V4.1: ≤481 kWh per year; at least 30% better than Federal standard V5.0: ≤637 kWh per year; at least 15% better than the amended Sept 15, 2014 Federal standard		
Televisions	$P_{max} = 60 \times \text{TANH}(0.00075(A - 140) + 0.01) + 11$ Where: P _{max} = maximum allowable On Mode Power consumption in W A = viewable screen area of the product in square inches TANH = hyperbolic tangent function		
Ventilating Fans*	Bathroom/utility fans only; Efficacy(cubic feet per min/W) 7.5 cfm/W high speed for 10-89 cfm fans 6.8 cfm/W high speed for ≥90 cfm fans		
Residential Windows*	U-factor ≤ 0.20 in all Zones SHGC in Northern Zone ≥ 0.20 SHGC in North-Central Zone ≤ 0.40 SHGC in South-Central and Southern Zones ≤ 0.25 North American Fenestration Standard/Specification (NAFS) Performance Grade ≥15		

*Proposed criteria carried over from 2013 for these categories.

EPA will provide additional information regarding the roll out of ENERGY STAR Most Efficient 2014 recognition with the finalization of these criteria. Products recognized in 2013 that meet the ENERGY STAR Most Efficient 2014 criteria will automatically receive recognition.

EPA will hold a stakeholder webinar on **Thursday, August 22nd, from 11AM to 1 PM Eastern Time** to discuss the proposed 2014 recognition criteria. To participate in this webinar, please register with mostefficient@energystar.gov by **Thursday, August 15th**. Please share written comments no later than

Friday, September 6, 2013 with mostefficient@energystar.gov. EPA plans to finalize these recognition requirements in September.

Thank you for your support of the ENERGY STAR program.

Sincerely,

A handwritten signature in black ink, appearing to read "Ann Bailey". The signature is fluid and cursive, with the first name "Ann" written in a large, open loop and the last name "Bailey" written in a more compact, cursive style.

Ann Bailey, Director
ENERGY STAR Product Labeling