ENERGY STAR®
Most Efficient Pilot Update

Peter Banwell, EPA
ENERGY STAR Partner Meeting
Charlotte, NC
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Today

• Most Efficient of ENERGY STAR: Goals and Overview
• Pilot Products and 2011 Criteria
  – Status of Recognition
  – Thoughts re: 2012 Criteria
• Promoting Most Efficient of ENERGY STAR
  – Guidelines
  – Utility Activity
  – Retail Activity
• Next steps
Goal

Drive more energy efficient products into the market more quickly by identifying the top, few, most energy efficient products for early adopters without confusing consumers or harming the ENERGY STAR brand.

EPA recognized the need to deploy clean technologies faster to address climate change
Most Efficient

ENERGY STAR

ENERGY STAR: Most Efficient

Emerging Tech: The Chasm

Energy Efficient Technologies Commercialization Process
ENERGY STAR Most Efficient Proposed Recognition Principles

- Recognize performance that is truly exceptional; aspirational; leading edge (i.e., consistent with the interests of early adopters)
- No compromise in performance
- More than one manufacturer
- Structure so that recognized products deliver top performance regardless of geography/climate
- Not necessarily available for all configurations or in the largest sizes
Pilot launched May 5, 2011 -
In Play Now

• Performance levels for recognition finalized. Based on:
  – Case-by-case review of performance data and technology developments for each category
  – Superior efficiency; latest in technological achievement
  – Very small initial set of qualifying models

• Stakeholders notified; manufacturers invited to submit products
# Categories, Criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothes Washers</td>
<td>Clothes Washer Volume</td>
</tr>
<tr>
<td></td>
<td>≤ 2.5 cubic feet</td>
</tr>
<tr>
<td></td>
<td>&gt; 2.5 cubic feet</td>
</tr>
<tr>
<td>Air-source heat pumps</td>
<td>≥ 18 SEER, 12.5 EER, &amp; 9.6 HSPF for split systems;</td>
</tr>
<tr>
<td></td>
<td>16 SEER, 12 EER &amp; 8 HSPF for packaged systems;</td>
</tr>
<tr>
<td></td>
<td>communications, diagnostics and automated configuration</td>
</tr>
<tr>
<td>Central air conditioners</td>
<td>≥ 18 SEER &amp; 12.5 EER for split CAC, 16 SEER &amp; 12 EER for packaged CAC;</td>
</tr>
<tr>
<td></td>
<td>communications, diagnostics and automated configuration</td>
</tr>
<tr>
<td>Furnaces</td>
<td>97 AFUE; communications, diagnostics and automated configuration.</td>
</tr>
<tr>
<td>Geothermal heat pumps</td>
<td>Equivalent to Tier 3 levels established in the ENERGY STAR Program</td>
</tr>
<tr>
<td></td>
<td>Requirements; communications, diagnostics and automated configuration</td>
</tr>
<tr>
<td>Refrigerator-freezers</td>
<td>≤ 422 kWh per year ; at least 30% better than Federal standard</td>
</tr>
<tr>
<td>Televisions</td>
<td>A &lt; 400: ( P_{\text{max}} = (0.046 \times A) + 13.0 )</td>
</tr>
<tr>
<td></td>
<td>400 ≤ A ≤ 1068: ( P_{\text{max}} = (0.073 \times A) + 2.0 )</td>
</tr>
<tr>
<td></td>
<td>A &gt; 1068: ( P_{\text{max}} = 80 )</td>
</tr>
<tr>
<td></td>
<td>( P_{\text{max}} = \text{max On Mode power consumption;}</td>
</tr>
<tr>
<td></td>
<td>A = viewable screen area in sq. inches</td>
</tr>
</tbody>
</table>
## Most Efficient Recognized Products

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Number of Most Efficient Models</th>
<th>Brands</th>
<th>Manufacturers</th>
<th>Manufacturer Names</th>
<th>Size Range</th>
<th>Technology Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Televisions</td>
<td>18</td>
<td>5</td>
<td>4</td>
<td>Best Buy, Panasonic, LG</td>
<td>16 to 60 inches</td>
<td>LCD, LED, OLED</td>
</tr>
<tr>
<td>Clothes Washers</td>
<td>18</td>
<td>8</td>
<td>4</td>
<td>Electrolux, Samsung, LG, Miele</td>
<td>1.98 to 4.42 Cubic feet</td>
<td>N/A</td>
</tr>
<tr>
<td>Refrigerator-Freezers</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>LG</td>
<td>21 to 26 Cubic Feets</td>
<td>N/A</td>
</tr>
<tr>
<td>Air-Source Heat Pumps</td>
<td>27</td>
<td>7</td>
<td>4</td>
<td>Nordyne, Lennox</td>
<td>23000 to 44500 MBtu/h</td>
<td>N/A</td>
</tr>
<tr>
<td>CAC</td>
<td>22</td>
<td>9</td>
<td>4</td>
<td>Rheem, Rudd, Nordyne, Lennox</td>
<td>24600 to 49500 MBtu/h</td>
<td>N/A</td>
</tr>
<tr>
<td>Furnaces</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>Lennox</td>
<td>64 to 128 MBtu/h</td>
<td>N/A</td>
</tr>
<tr>
<td>GHP</td>
<td>40</td>
<td>1</td>
<td>1</td>
<td>FHP Manufacturing-Bosch Group</td>
<td>28500 to 78000 Btu/h</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Guidelines for Using the Most Efficient Designation

The ENERGY STAR Most Efficient designation is a symbol of high energy efficiency achieved by the products in a particular category. The designation is awarded to products that meet strict energy efficiency criteria set by the EPA. This page provides guidelines for using the designation correctly.

## Things You Cannot Do:
- Mark or refer to a product as being ENERGY STAR certified.

## Things You Can Do:
- Use the phrase "ENERGY STAR certified" or similar.

## Examples of Preferred Text on a Retail Website:
- **Writing about products that qualify for the Most Efficient Designation**
  - "Product A is ENERGY STAR certified.

## Correctly Using the Designation in a Retail Display:
- **Company B**, a company committed to ENERGY SERVICE, proudly exhibits its Most Efficient products in our store.

##energystar.gov

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### Guidelines for Using the Most Efficient Designation

**AS A REMINDER, WHEN WRITING ABOUT ENERGY STAR:**
- The phrase "Most Efficient" should always appear in capital letters.
- The registration symbol can be used in the first line the terms "ENERGY STAR" appear in material.
- The phrase should always be in a separate paragraph.
- There should be a space between the words "ENERGY STAR" and the "E" symbol.
- The "E" symbol should be preceded by a colon or a period for each chapter title or page title.

**ENERGY STAR REVIEW POLICY**
- Print and online materials should use the COPYING and DISTRIBUTION POLICY to ensure consistent use of the ENERGY STAR logo.

**FOR MORE INFORMATION**
- Visit energystar.gov for more information on the ENERGY STAR Most Efficient designation.
Examples

White 4.0 cu. ft. Front-Load Washing Machine
ENERGY STAR®

Reg Price: $820.00
Savings: $280.00
Rated $549.99 Recognized as the most efficient of ENERGY STAR 2011

This product is eligible for Delivery or Store Pickup

- Delivery
- Store Pickup

Energy Star
Examples
ENERGY STAR Most Efficient 2011 – Televisions

**SAMSUNG UN46C6500AF**

- **MSRP:** $1119
- **Screen Size:** 46 inches
- **Resolution:** 1920 x 1080
- **Display Type:** LED
- **Automatic Brightness Control:** Yes
- **Annual Energy Use (Wh/yr):** 60
- **Annual Cost to Operate:** $6.15

**LG 60LX730**

- **MSRP:** $2745
- **Screen Size:** 55 inches
- **Resolution:** 1920 x 1080
- **Display Type:** LED
- **Automatic Brightness Control:** Yes
- **Annual Energy Use (Wh/yr):** 156
- **Annual Cost to Operate:** $17.40

**SAMSUNG UN55C8000**

- **MSRP:** $2399
- **Screen Size:** 60 inches
- **Resolution:** 1920 x 1080
- **Display Type:** LED
- **Automatic Brightness Control:** Yes
- **Annual Energy Use (Wh/yr):** 198
- **Annual Cost to Operate:** $21.67

*Estimated using an average price of electricity of 11.3 cents per kilowatt-hour and 5 hours of TV use per day.*
Promoting Most Efficient: Energy Efficiency Program Activity

• ENERGY STAR remains the basis for promotions for most

• Some will build pilot promotions around Most Efficient and share feedback

• Planning underway for 2012 pilots

• Promising early efforts
  – 2 utilities
    • Over 200 participating stores
    • Expected reach ~2 million customers
Promoting Most Efficient: Retail Activity

- Retailers receptive to Most Efficient (ME) – predominantly as an approach to even out inconsistencies in utility programs
- Other interests include:
  - Where good assortment, promoting ME to provide sell-up opportunities
    - Particularly relevant for laundry since ME has strong presence in that category
  - Where retailers have exclusive brands (e.g., Sears’ Kenmore and Best Buy’s Insignia), retailer interested in leveraging ME to bolster these brands
Example: Sears Online Product Page

This Kenmore Elite 4.3 cu. ft. front-load HE washer starts with SmartMotion Technology, which creates an amazing selection of cycles to provide the ultimate in customized care and cleaning. Fresh, new features make it easy to keep the drum and the wash load fresh.

This ENERGY STAR washer has been certified as an ENERGY STAR Most Efficient appliance. (Highest Rating Available)

When you select the Stay Fresh Option, the washer will periodically tumble the wash load to keep clothes smelling fresh.
Example: Sears Online Product Page (Cont’d)

<table>
<thead>
<tr>
<th>Kenmore Elite 4.3 cu. ft. Front-Load HE Steam Washer - White ENERGY STAR®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sold by Sears</td>
</tr>
<tr>
<td>Check for as-is items in your area</td>
</tr>
<tr>
<td>Follow Price</td>
</tr>
<tr>
<td>**Delivery</td>
</tr>
<tr>
<td>Check Availability</td>
</tr>
<tr>
<td>Add to Cart</td>
</tr>
<tr>
<td>Check for Energy Star rebates near you:</td>
</tr>
<tr>
<td>Zip Code: ___</td>
</tr>
<tr>
<td>Great offers, more savings with your Sears card. Apply Now!</td>
</tr>
</tbody>
</table>

More Product Information...

<table>
<thead>
<tr>
<th>Description</th>
<th>Specifications</th>
<th>Ratings &amp; Reviews</th>
<th>Sears Can Help</th>
<th>Special Offers</th>
</tr>
</thead>
</table>

$1181.49

Reg Price: $1380.69
Savings: $208.50

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Most Efficient 2011

www.energy.gov
Next Steps

- Evaluated 2011 Criteria (complete)
  - Does it effectively recognize the most efficient products on the market in the covered product categories?
- Release 2012 draft
- Extend Pilot through 2012
  - Add: Boilers
  - Revise: TVs, Refrigerators
  - Maintain: Other categories and levels
Contacts

Katharine Kaplan (products)
katharine.kaplan@epa.gov
202-343-9120

Jill Vohr (retail)
vohr.jill@epa.gov
202-343-9002

Hewan Tomlinson (utilities)
tomlinson.hewan@epa.gov
202-343-9082