



# **ENERGY STAR® Most Efficient Pilot Proposed 2012 Recognition Criteria**

**November 30, 2011**

# Today

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- Most Efficient of ENERGY STAR: Goals and Overview
- 2011 Pilot Status
- Proposed 2012 Recognition Criteria
- Next steps

# Goal

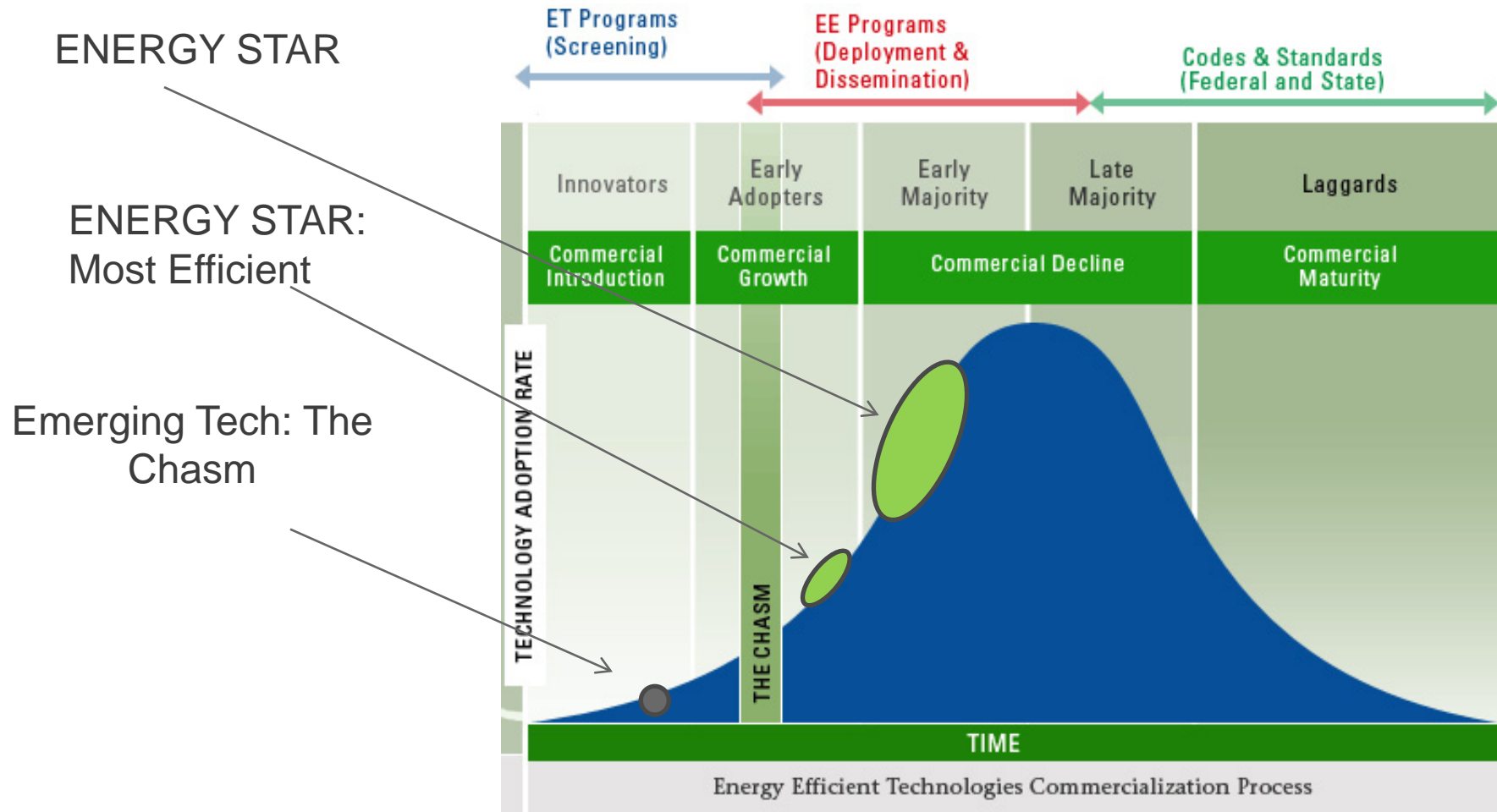
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Drive more energy efficient products into the market more quickly by identifying the top, few, most energy efficient products for early adopters without confusing consumers or harming the ENERGY STAR brand.

EPA recognized the need to move the most energy efficient products into the market more quickly to address climate change.

# ENERGY STAR Most Efficient



# ENERGY STAR Most Efficient 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

# Recognition Criteria Based On

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- 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

# 2011 Pilot Status

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- Launch May 2011
- 7 Categories: Clothes Washers, Refrigerator-Freezers, Air-Source Heat Pumps, Central Air Conditioners, Furnaces, Geothermal Heat Pumps, and Televisions
- To date: more than 170 products recognized from over 20 brands

# 2011 Pilot: ENERGY STAR Most Efficient Recognized Products



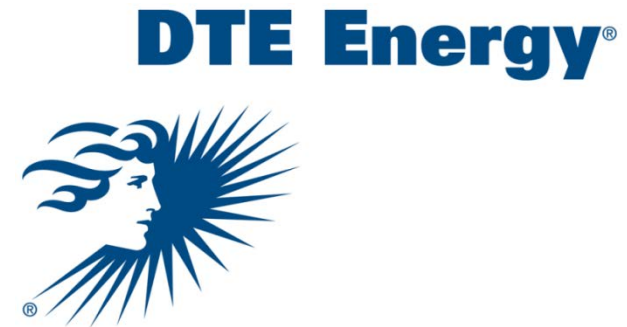
|                           | Number of<br>Most Efficient<br>Models | Brands | Manufacturers | Manufacturer<br>Names                                  | Size Range                 | Technology<br>Type |
|---------------------------|---------------------------------------|--------|---------------|--|----------------------------|--------------------|
| Televisions               | 29                                    | 7      | 5             | Best Buy,<br>Panasonic, LG,<br>Sharp, Samsung          | 16 to 60 inches            | LCD, LED,<br>OLED  |
| Clothes Washers           | 18                                    | 8      | 4             | Electrolux,<br>Samsung,<br>LG, Miele                   | 1.98 to<br>4.42 Cubic feet | N/A                |
| Refrigerator-<br>Freezers | 4                                     | 2      | 2             | LG, Liebherr   | 15 to 26<br>Cubic Feet     | N/A                |
| Air-Source Heat<br>Pumps  | 19                                    | 7      | 2             | Nordyne, Lennox  | 23000 to<br>44500 MBtu/h   | N/A                |
| CAC                       | 30                                    | 9      | 3             | Rheem, Rudd,<br>Nordyne                                | 24600 to<br>49500 MBtu/h   | N/A                |
| Furnaces                  | 31                                    | 6      | 3             | Lennox , Carrier,<br>International<br>Comfort Products | 47 to 129 MBtu/h           | N/A                |
| GHP                       | 40                                    | 1      | 1             | FHP<br>Manufacturing-<br>Bosch Group                   | 28500 to 78000<br>Btu/h    | N/A                |



# 2011 Pilot: 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



# 2011 Pilot: 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), retailer interested in leveraging ME to bolster these brands

# 2011 Pilot: Canadian Pilot



- Natural Resources Canada (NRCCan) launched Canadian pilot
- 4 Categories: Refrigerator-Freezers, Clothes Washers, TVs, and Cooling Equipment
- Website and 2011 iOS app launched
- Working with manufacturers, utilities, and retailers in Canadian market

# Extension of ENERGY STAR Most Efficient Pilot through 2012

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- To allow sufficient opportunity for testing
- Responds to strong utility interest for longer pilot, enabling testing through utility program deployment

# 2012 Proposed Modifications to Criteria



- **Adding boilers:** Closely tied to the HVAC suite
- **Clarifying HVAC communications requirements:** **proposing** information sent to a system controller by HVAC equipment be characterized as “system status” rather than “diagnostics.”
- **Increasing stringency of TV requirements:** proposed 2012 requirements would recognize five percent of models on the market in 2011, including ample recognition in 40 and 50 inch screen sizes.
- **Easing the requirements for refrigerators:** proposing to raise the maximum energy criterion to 481 kWh/year.

# 2012 Proposed Recognition Criteria



| Category                 | Requirements  |       |       |
|--------------------------|---|-------|-------|
| Clothes Washers          | Clothes Washer Volume   | MEF   | WF    |
|                          | ≤ 2.5 cubic feet  | ≥ 2.3 | ≤ 4.5 |
|                          | > 2.5 cubic feet  | ≥ 3.0 | ≤ 3.3 |
| Air-source heat pumps    | ≥18 SEER, 12.5 EER, & 9.6 HSPF for split systems; 16 SEER, 12 EER & 8 HSPF for packaged systems; communications, <b>system status</b> , and automated configuration   |       |       |
| Central air conditioners | ≥18 SEER & 12.5 EER for split CAC, 16 SEER & 12 EER for packaged CAC; communications, <b>system status</b> , and automated configuration  |       |       |
| Furnaces                 | 97 AFUE; communications, <b>system status</b> , and automated configuration.  |       |       |
| Geothermal heat pumps    | Equivalent to Tier 3 levels established in the ENERGY STAR Program Requirements; communications, <b>system status</b> , and automated configuration   |       |       |
| Boilers                  | 95 AFUE or higher   |       |       |
| Refrigerator-freezers    | <b>≤481 kWh per year; at least 30% better than Federal standard</b>   |       |       |
| Televisions              | <b> <math>P_{max} = 82 * \text{TANH}(0.00084(A-150) + 0.05) + 12.75</math> </b><br><b>Where:</b><br><b><math>P_{max}</math> = maximum allowable On Mode Power consumption in W</b><br><b>A = viewable screen area of the product in square inches</b><br><b>TANH =hyperbolic tangent function</b> |       |       |

# Next Steps

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- Please share comments on 2012 proposed recognition criteria to [mostefficient@energystar.gov](mailto:mostefficient@energystar.gov) by **Thursday, December 15, 2011**
- EPA will distribute final criteria in January 2012
- EPA will highlight 2012 recognized products on the ENERGY STAR Most Efficient Website through December 30, 2012

# Contacts

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