Welcome to Long Beach!

Richard Karney, P.E.
ENERGY STAR Program Manager
U.S. Department of Energy
September 22, 2008
Meeting Overview

• This year’s meeting structure is similar to last year’s format.
  – Marketing Summits
  – Breakout Sessions
  – Plenary Sessions
Meeting Overview

Marketing Summits

• Provides a forum for a manufacturer or retailer to present its 2008-2009 ENERGY STAR appliance promotional plans and collaboration opportunities to all of the utilities, states, and Energy Efficiency Program Sponsors (EEPS).

• Only utility, state, and EEPS partners are allowed to attend the Marketing Summits.
Partner Breakout Meetings

• Provides a venue for partners to discuss specific opportunities for cooperation on 2008-2009 ENERGY STAR qualified appliance promotions.

• Manufacturers and retailers will host the breakout sessions and EEPS will rotate in regional groups between breakout meeting rooms.

• Each session will last 30 minutes.

• A detailed schedule of meeting times and locations is contained in your registration packet.
Michael C. Thompson
1945 - 2003
Meeting Sponsors

Evening Event

Enjoy our conference reception tonight with your host, Best Buy, from 7:00 – 9:00 PM at the Queen Mary.
Meeting Sponsors
Host Sponsors

A BIG thank you to our host sponsors....

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DOE ENERGY STAR Update

Richard Karney
U.S. Department of Energy
September 22, 2008
There is no joy in Mudville
Agenda

• Awareness and Influence
• Appliance Federal Standards and ENERGY STAR Criteria
• Sales Data
Awareness and Influence
Consumers Recognize ENERGY STAR

Aided Recognition of ENERGY STAR Label

<table>
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Source: Consortium for Energy Efficiency Household Surveys (2001-2007). Standard errors vary between 1.5% and 2.2%.

WWW.ENERGYSTAR.GOV
ENERGY STAR Awareness

Based on the 2007 CEE Household Survey:

- Approximately 51% of households can identify the ENERGY STAR mark (unaided)

- Products most associated with ENERGY STAR are:
  - Refrigerators: 80%
  - Clothes washers: 73%
  - Dishwashers: 70%
  - Window: 49%
  - Central AC: 49%
  - Room AC: 49%

However, An Interesting Fact: 39% of households associated microwave ovens with ENERGY STAR, which do not in fact have an ENERGY STAR criteria.

WWW.ENERGYSTAR.GOV
Consumers Trust ENERGY STAR

Source: Fairfield Research, Summer 2007

WWW.ENERGYSTAR.GOV
ENERGY STAR Appliance Market Share is Growing
Web stats
ENERGY STAR Web Site Traffic

Millions of Visits per Quarter

2005 2006 2007

WWW.ENERGYSTAR.GOV
20 Most Frequently Viewed Pages 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Page Name</th>
<th>Rank</th>
<th>Page Name</th>
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<tr>
<td>1</td>
<td>ENERGY STAR Home Page</td>
<td>11</td>
<td>Refrigerators &amp; Freezers</td>
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<tr>
<td>2</td>
<td>Federal Tax Credits for Energy Efficiency</td>
<td>12</td>
<td>Home Improvement</td>
</tr>
<tr>
<td>3</td>
<td>Email this page to a friend</td>
<td>13</td>
<td>Ref. Retirement Savings Calculator</td>
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<td>4</td>
<td>Find a Product (Products landing page)</td>
<td>14</td>
<td>Clothes Washers</td>
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<td>5</td>
<td>Compact Fluorescent Light Bulbs</td>
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<td>Light Bulbs and Fixtures</td>
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<td>6</td>
<td>ENERGY STAR Search Results Change a Light: Take the Pledge</td>
<td>16</td>
<td>New Homes</td>
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<td>Rebate Finder</td>
<td>17</td>
<td>Central Air Conditioners</td>
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<td>8</td>
<td>Appliances</td>
<td>18</td>
<td>Room Air Conditioners</td>
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<tr>
<td>9</td>
<td>ENERGY STAR at Home Pop-Up Tool</td>
<td>19</td>
<td>Buildings and Plants Landing Page</td>
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<td>10</td>
<td>Heat &amp; Cool Efficiently</td>
<td>20</td>
<td>Dishwashers</td>
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Appliance Federal Standards and ENERGY STAR Criteria
Federal Standards

• DOE is in charge of setting minimum Federal standards on select appliances and other equipment.

• DOE must upgrade Federal standards to the maximum level of energy efficiency that is technically feasible and economically justified. Federal standards intend to maximize consumer benefits and minimize the negative impacts on manufacturers.

• ENERGY STAR uses the Federal standards as the baseline and impetus for ENERGY STAR appliance criteria revisions.
# Upcoming Relevant Federal Standard Schedule

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<th>Product Category</th>
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<tr>
<td>Packaged Terminal Air Conditioners</td>
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<tr>
<td>Commercial Clothes Washers</td>
<td>March 2009</td>
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<tr>
<td>Residential Water Heaters</td>
<td>March 2010</td>
</tr>
<tr>
<td>Refrigerators and Freezers</td>
<td>December 2010</td>
</tr>
<tr>
<td>Room Air Conditioners</td>
<td>June 2011</td>
</tr>
<tr>
<td>Clothes Dryers</td>
<td>June 2011</td>
</tr>
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</table>
2007 Energy Independence and Security Act

• Legislation enacted on December 19, 2007

• Mandates new appliance standards:
  – Clothes washers: Modified Energy Factor (MEF) >= 1.26, Water Factor (WF) <= 9.5, effective 1/1/11 (DOE must set 2015 standards by the end of 2011)
  – Dishwashers: Maximum kWh/yr 355, maximum gallons/cycle 6.5 effective 1/1/10 (DOE must set 2018 standard by the end of 2014)

• DOE must evaluate new refrigerator and freezer standards by January 1, 2011, which would take effect January 1, 2014.

• DOE will now be able to issue “direct final rules” when efficiency advocates and industry agree on a new standard.
Guiding Principles for ENERGY STAR Criteria Development & Revisions

- Significant energy savings
- No impact on product performance
- ENERGY STAR qualified product is cost effective
- Several technology options can achieve criteria setting (one of which is non-proprietary)
- Energy consumption can be quantified
- Label differentiates products and is visible to purchasers
• 2008 Review
  – Revised refrigerator and clothes washer criteria
  – Added new water heater category to ENERGY STAR

• 2009 Activity
  – Revise dishwasher criteria
  – Add clean power technologies
Refrigerator Criteria

• Changed the criteria from 15% more efficient than the minimum Federal standard to 20% more efficient effective April 28, 2008

• Criteria unchanged for compacts and freezers

• Retailers could promote previously qualified models with factory labels until July 28, 2008
Energy Star has lost some luster
The program saves energy but hasn’t kept up with the times

If you need a new refrigerator, you might be drawn to the Samsung RF 267AEDW. This sharp-looking bottom-freezer, which we’re testing for a future report, is equipped with French doors, through-the-door ice and water dispensers, and many other inviting features.

This refrigerator might also appeal because it carries the Energy Star badge of honor, thanks to its claimed 540-kilowatt-hour annual consumption. “By being Energy Star compliant you are assured that your Samsung model is helping the environment by using less energy while saving you money,” a blurb on the company’s Web site says.

But in our comparative energy tests, which are tougher than the Department of Energy’s and better resemble how you use a refrigerator, it used 890 kWh per year.

There’s an even larger difference between company claims and our measurements for the LG LMX25981ST French-door fridge. LG says it uses an Energy Star compliant 547 kWh per year. We found through our tests that real-life energy use would be more than double.

Why the energy-use gap? DOE procedures call for a refrigerator’s icemaker to be off during testing. On the LG, turning off the icemaker also shuts off cooling to the ice-making compartment, located on the refrigerator door.

In our preliminary tests with the icemaker off, the energy use we measured was much closer to LG’s figure. But that’s not how you’d use the feature at home since doing so melts all the ice. When we gauged energy use with the LG’s icemaker on, we got a consumption of 1,110 kWh per year.

Such a loophole lets manufacturers label products more energy efficient than we’ve found them to be, and they get the Energy Star and its cachet when you won’t see those savings.
While the Department appreciates the considerable time and effort manufacturers invest in developing refrigerator-freezer designs to appeal to consumers, DOE is very concerned by the substantial differences in the reported energy usage from some manufacturers and the measured energy usage of products with all energy-consuming systems, including ice making systems, in operation during testing. In particular, DOE is concerned that one or more manufacturers may have improperly applied the DOE test procedure for refrigerator-freezers. DOE is currently examining this issue very closely and considering a variety of responses to address it.
Clothes Washer Criteria

• Revised the clothes washer criteria by announcing two future criteria levels and effective dates.
  – As of July 1, 2009, qualified clothes washers must have a minimum MEF of 1.8 and a maximum water factor of 7.5.
  – As of July 1, 2011, qualified clothes washers must have a minimum MEF of 2.0 and a maximum water factor of 6.0.

• The changes apply to both residential and residential-style commercial clothes washers.
Water Heater Criteria

- ENERGY STAR added water heater as a product category.
- Manufacturers can qualify products as of January 1, 2009.
- The criteria covers gas condensing, high efficiency gas storage, electric heat pump, gas tankless and solar water heaters.
Dishwasher Criteria

- DOE has proposed changing the dishwasher criteria with a proposed effective date of July 1, 2009 and another proposed effective date of July 1, 2011.

- The proposed criteria change the metric to kWh/year from Energy Factor and include water consumption in gallons per cycle.

- The final criteria should be announced in the next week.
Room AC Criteria

• ENERGY STAR will wait for the finalization of the current Federal standards rulemaking process in 2011 before undergoing a criteria revision.

• As of 2010, all Room ACs must also use more environmentally friendly coolant which potentially may affect efficiency.
PTACs and PTHPs

- Criteria will not be out next week as promised at previous APMs.

- ENERGY STAR will wait for the finalization of the current Federal standards rulemaking process before undergoing criteria development.

- As of 2010, all PTACs and PTHPs must also use more environmentally friendly coolant which potentially may affect efficiency.
Clean Power Technologies

• Stakeholder feedback indicated that Photovoltaic (PV) and Small Wind are the most ready for inclusion in the ENERGY STAR program.

• DOE has completed background analysis papers on both technologies and is exploring the best methods to include these technologies in the ENERGY STAR program.

• The full analysis papers and criteria setting documents will be released to stakeholders this fall.

• DOE hopes to conduct the criteria setting process for both PV and Small Wind during FY2009.
The Federal Trade Commission (FTC) recently revised the EnergyGuide label design.

- Changed to make operating cost the main descriptor instead of energy use.
- Took effect 2/29/08.
- ENERGY STAR logo must be placed in lower right corner of qualified products.
Appliance Tax Credits

• Manufacturer tax credits on domestically produced ENERGY STAR qualified clothes washers, dishwashers, and refrigerators expired on December 31, 2007.

• The appliance industry has been working to reestablish those tax credits.

• Currently the latest version has passed the House but has not passed the Senate.

• With an expected presidential veto and the election, final passage is not expected until 2009.
ENERGY STAR Appliance Sales Data Update

- D&R International is still trying to acquire full-year 2007 and 2008 sales data from the national retail partners.

- The 2007 criteria changes for clothes washers and dishwashers necessitated extra work by the retailers to compile the data.

- Progress is being made and final data is expected soon.

- Preliminary data is now available.
Preliminary 2007 National ENERGY STAR Market Share Estimates

- Clothes Washers – 45%
- Dishwashers – 70%
- Refrigerators – 40%
- Room ACs – 40%
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