

Appliance Standards and Market Transformation

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Reducing Energy Use: The Role of Appliance Standards

EESI Briefing – April 15, 2010



ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient World

What is the Alliance to Save Energy?



ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient World

The Alliance to Save Energy promotes energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security.

- Non-profit U.S. organization; operations world-wide
- Led by **Senator Mark Pryor (D-Ark.)** and **Peter Darbee, President and CEO of Pacific Gas and Electric**
- Board includes 10 Members of Congress –Bi-Partisan
- Also environmental, consumer, and trade associations heads, state and local policy makers, corporate executives



Overview

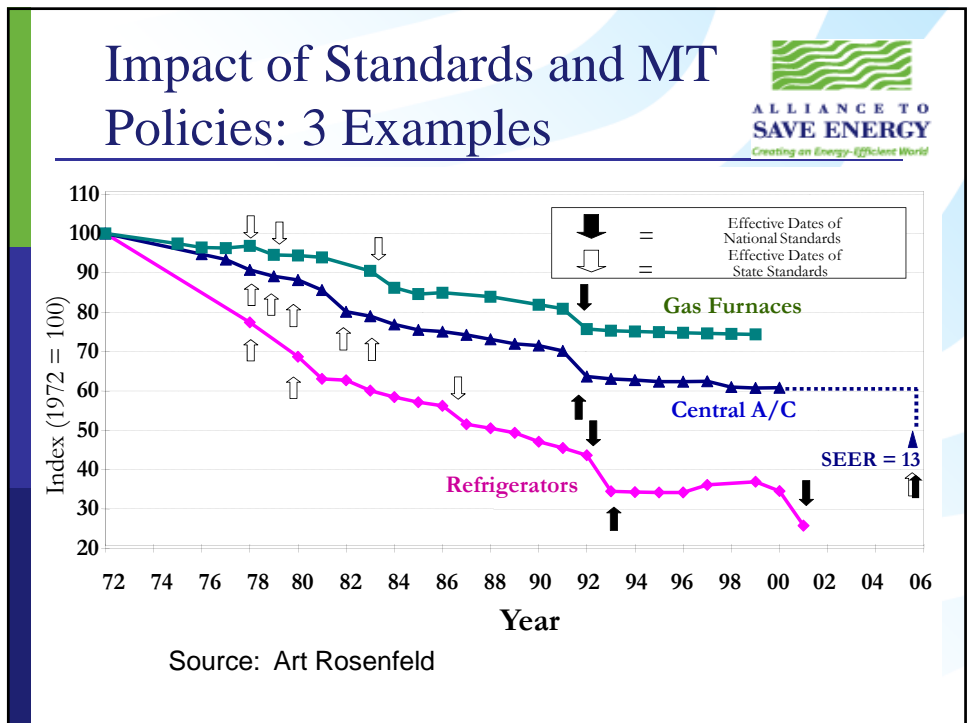
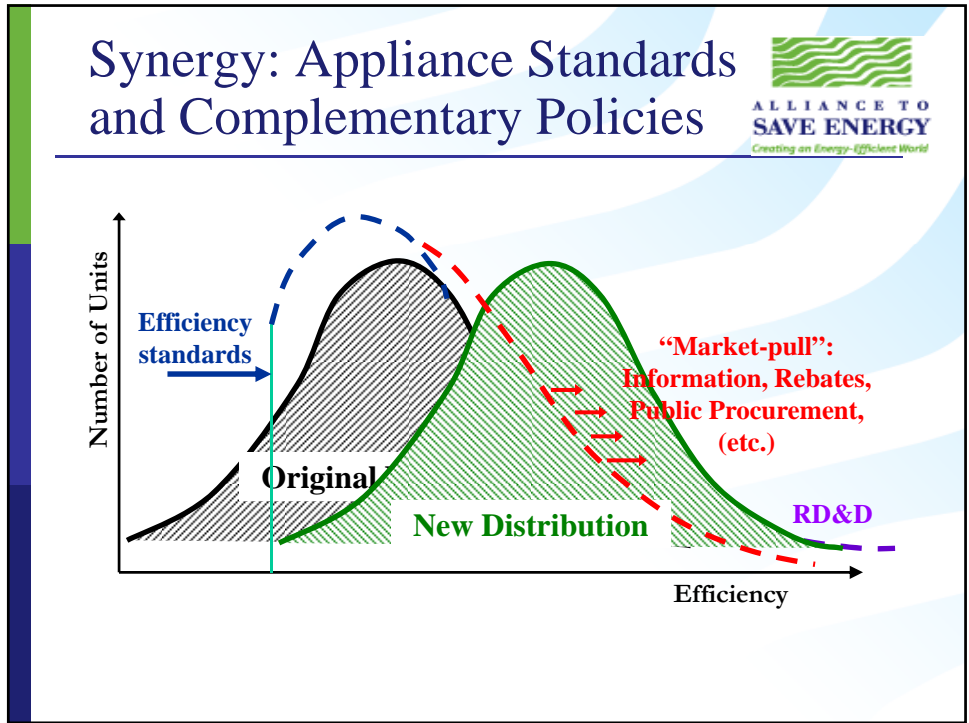


- Appliance standards & labeling in context
- Status and prospects
- Future directions

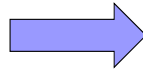
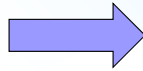
Bottom Line: Standards on Track to Achieve Major Savings



- DOE adding resources and staff capacity
- Two major standards in 2009-10 will save consumers ~\$43 billion over 30 years
- Negotiated industry agreements in 2009 could double these savings (along with key innovations)
- DOE has another 20+ rulemakings to come
- . . . But there's more to do

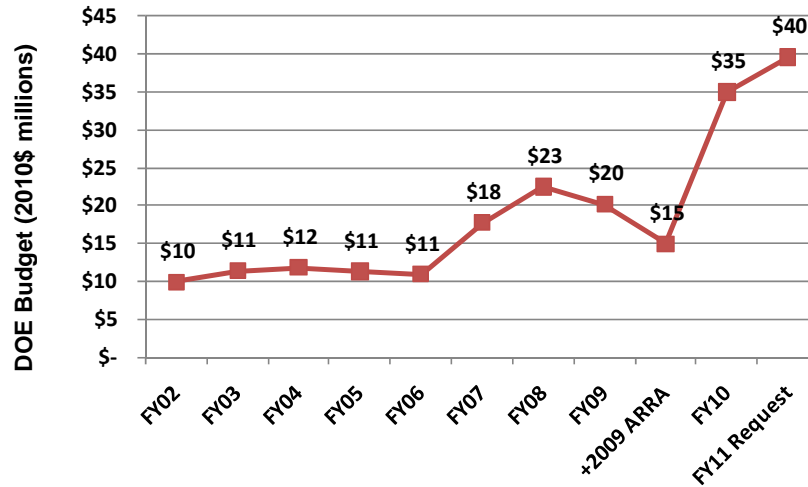


Some Technology Advances Occur without Standards



DOE STANDARDS PROGRAM


DOE Budget for Appliance Standards Doubled (FY10-11)



DOE's Challenge: A Heavy Lift for Standards and Test Methods




	FY 2009	FY 2010 Scheduled	FY 2011 Scheduled
Standards	<ol style="list-style-type: none"> Beverage Vending Machines General Service Fluorescent Lamps Incandescent Reflector Lamps Ranges and Ovens Commercial Packaged Boilers Commercial Refrigeration Equipment Codified Prescribed Standards in EISA 2007 	<ol style="list-style-type: none"> Commercial Clothes Washers HID Lamps (Determination) Small Electric Motors Residential Water Heaters Direct Heating Equipment Pool Heaters Non-Class A External Power Supplies (Determination) 	<ol style="list-style-type: none"> Residential Refrigerators Residential Furnaces Battery Chargers External Power Supplies Fluorescent Lamp Ballasts Clothes Dryers Room Air-Conditioners Central Air-Conditioners Incandescent Lamps (ER/BR) Microwave Ovens
Test Procedures	<ol style="list-style-type: none"> General Service Incandescent Lamps General Service Fluorescent Lamps Incandescent Reflector Lamps Small Electric Motors Battery Chargers External Power Supplies 	<ol style="list-style-type: none"> Metal Halide Lamp Ballasts Walk-In Coolers and Freezers Residential Furnaces Small Furnaces Mobile Home Furnaces Residential Boilers Residential Refrigerators Microwave Ovens Residential Water Heaters Direct Heating Equipment Pool Heaters Battery Chargers Electric Motors Clothes Dryers Room Air-Conditioners Central Air-Conditioners 	<ol style="list-style-type: none"> Fluorescent Lamp Ballasts Residential Clothes Washers Ranges and Ovens Dehumidifiers Dishwashers



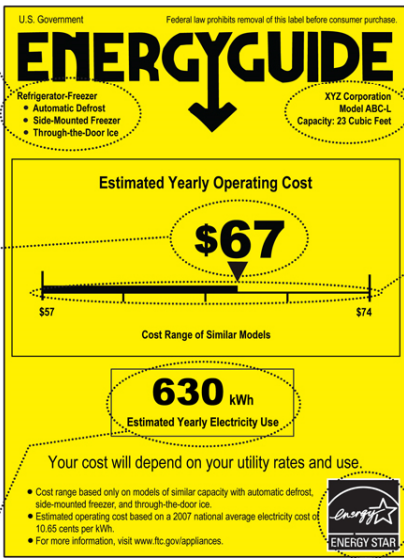
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APPLIANCE ENERGY LABELS



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Beyond Standards: FTC “Comparison” Energy Label



U.S. Government Federal law prohibits removal of this label before consumer purchase

ENERGYGUIDE

Refrigerator-Freezer
• Automatic Defrost
• Side-Mounted Freezer
• Through-the-Door Ice

XYZ Corporation
Model ABC-L
Capacity: 23 Cubic Feet

Estimated Yearly Operating Cost


\$67

\$57 ————— \$74
Cost Range of Similar Models

630 kWh
Estimated Yearly Electricity Use

Your cost will depend on your utility rates and use.

- Cost range based only on models of similar capacity with automatic defrost, side-mounted freezer, and through-the-door ice.
- Estimated operating cost based on a 2007 national average electricity cost of 10.65 cents per kWh.
- For more information, visit www.ftc.gov/appliances.



Appliance Labeling (II): Voluntary “Endorsement” Label



Should FTC Consider a “Categorical” Label ?



Energy	
Manufacturer	Logo ABC
Model	123
More efficient	B
Less efficient	
Energy consumption kWh/year <small>(Reference value for this category)</small>	350
<small>Actual energy consumption will depend on how the appliance is installed and used.</small> Fresh food volume l Frozen food volume l	200 80
Noise <small>(dB(A) re 1 pW)</small> <small>Further information is contained in product literature</small>	40
<small>From Feb 2010 May 2010 (Revised) LBN 1/01/08 SW200</small>	

Consumers Need Help to Understand & Use Labels



Brightness
820 lumens
Estimated Energy Cost
\$7.49 per year

Lighting Facts	
Per Bulb	
Brightness	820 lumens
Estimated Yearly Energy Cost	\$7.49
Based on 3 hrs/day and 11.4 ¢/kWh. Your cost will depend on your rates and use.	
Life in Years	1.4 yrs
Based on 3 hrs/day.	
Color Appearance	
Warm	Cool
Energy Used	60 watts

Proposed FTC Light Bulb Label



FUTURE DIRECTIONS

Needed: Need “Multiple Metric” Standards (e.g., grid-connected)



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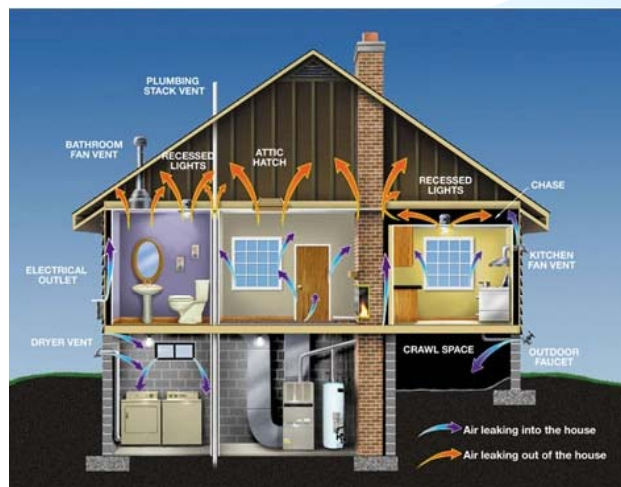


Could this be the next peaking (or “spinning reserve”) power plant?

Needed: Efficiency Standards Specific to New Construction



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Needed: Progressive Efficiency (Bigger Should be More Efficient)



RD&D as the Foundation for Next-Generation Standards



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The 50 Best Inventions of 2009

From a rocket of the future to a \$10 million lightbulb, here are TIME's gadgets and breakthrough ideas of the year

Select a Section

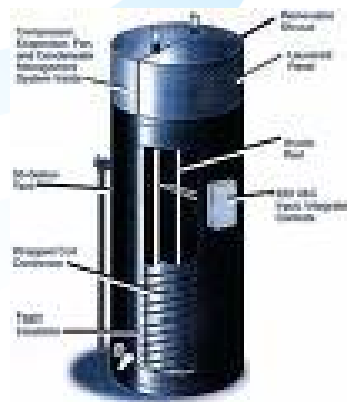
The Best Inventions

The \$10 Million Lightbulb

BACK
3



With the flick of a switch, PL Electronics may have just di lowered America's electric bi September the Dutch electric became the first to enter the Department of Energy's L Pi competition, which seeks an alternative to the common € Sixty-watt lights account for domestic incandescent mark



"Drop-in" Heat Pump Water Heater

Appliance Standards & Labeling Offer Global Savings Potential



The screenshot shows the CLASP website interface. At the top, it features the CLASP logo and the text 'Energy Efficiency Standards & Labeling Information Clearinghouse'. Below this is a navigation bar with links for Home, About CLASP, What's New, S&L Worldwide Summary, Resource Center, Partnership, and Contact Us. A search bar is also present. The main content area is divided into several sections: 'S&L Guidebook 2nd Edition' with a book cover image; 'Featured Story' titled 'Webinar Meeting on Computers and Servers' with a CLASP logo and a brief description of the event; 'S&L Worldwide Summary' with dropdown menus for region/economy and product; 'Tools for Implementers' with links to 'Policy Analysis Modeling System (PAMS)' and 'Standards & Labeling Questionnaire'; 'CLASP Partner Call' with a paragraph about global alignment; and 'What's New' with a list of recent events including the webinar, Hong Kong's extended labeling scheme, and DOE's tougher standards for water heaters.

eeGLOBAL
2010 ENERGY EFFICIENCY
GLOBAL FORUM & EXPOSITION



MAY 10-12, 2010 : WASHINGTON DC CONVENTION CENTER

- Washington DC Convention Center, May 10-12, 2010 - <http://eeGLOBALforum.org/>
- Previous EE Global conferences:
 - Washington DC – November 2007
 - Paris – April 2009
- NEXT: Beijing – 2011

THANK YOU!



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