



# ENERGY STAR Update

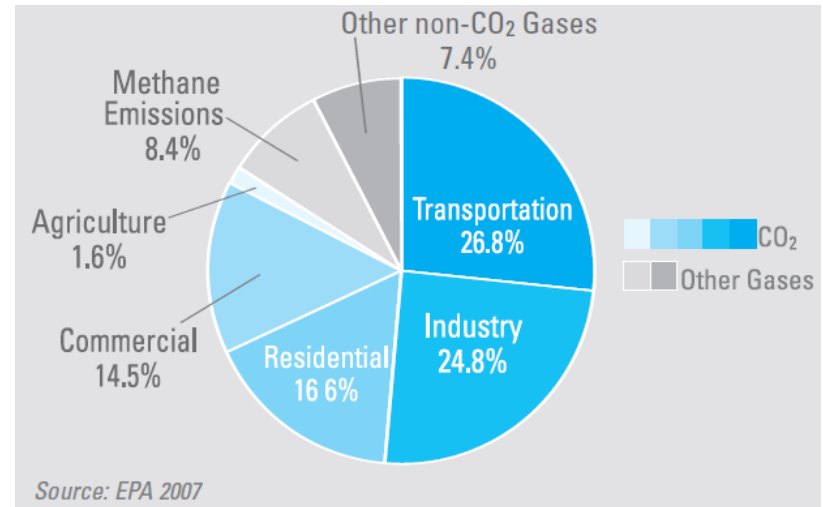
Stephen Pantano

Collaborative Labeling & Appliance Standards  
Program (CLASP)

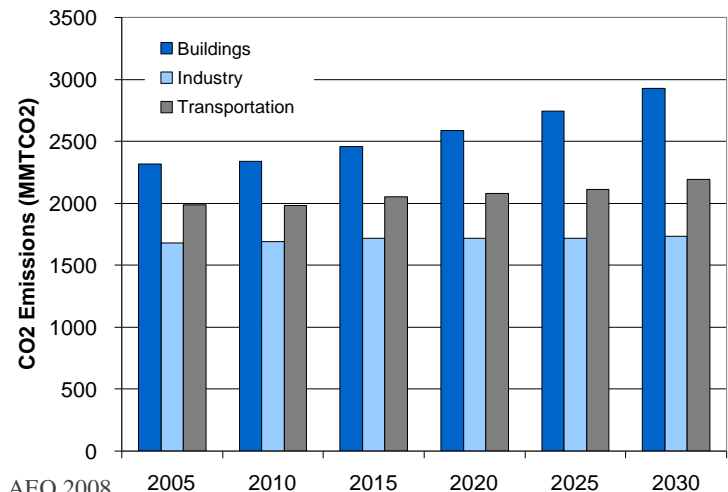
# ENERGY STAR



- Voluntary program started in 1992
- GOALS:
  - Reduce greenhouse gas emissions through large opportunities with today's energy efficient technologies and practices.
  - Achieve 30% savings possible in many buildings, homes, and facilities
  - Provide credible information to buyers
  - Work with the marketplace to capitalize on motivations of individual actors



Projected GHG Emissions from Key Sectors through 2030

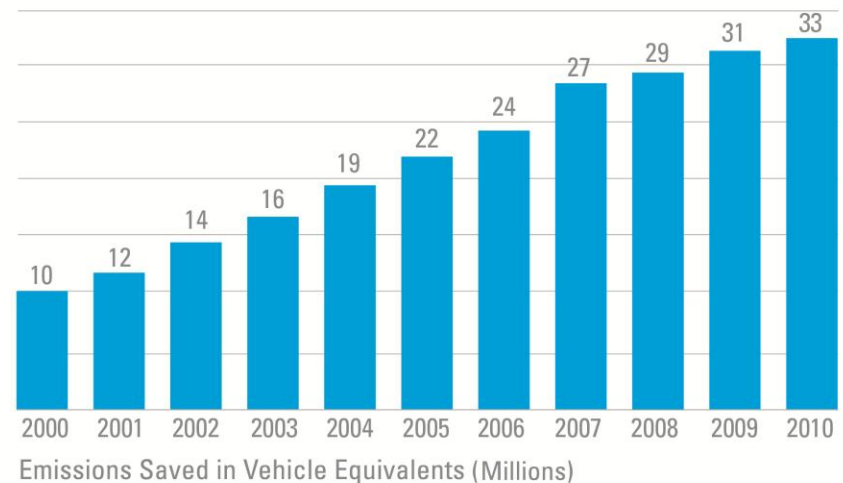
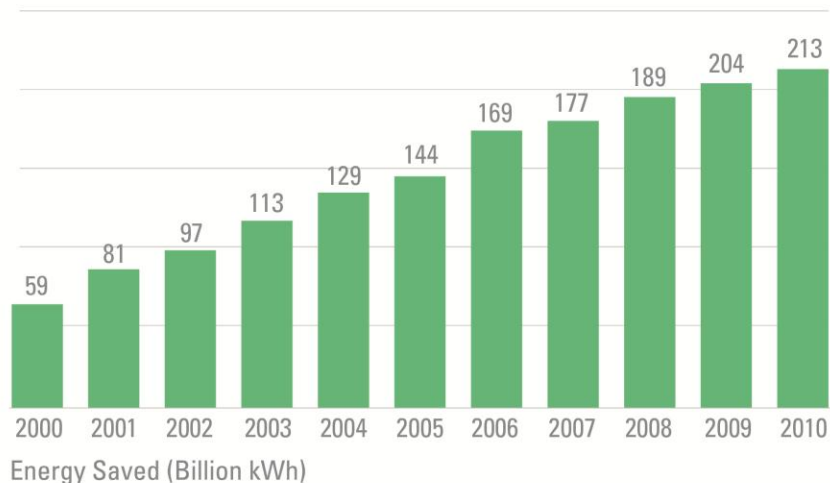


# Success: 2010 Accomplishments



- Americans with the help of ENERGY STAR prevented 170 million metric tons of GHG emissions in 2010 – equivalent to 33 million vehicles – and saved \$18 billion on energy bills

Since 2000, ENERGY STAR Benefits Have More Than Tripled

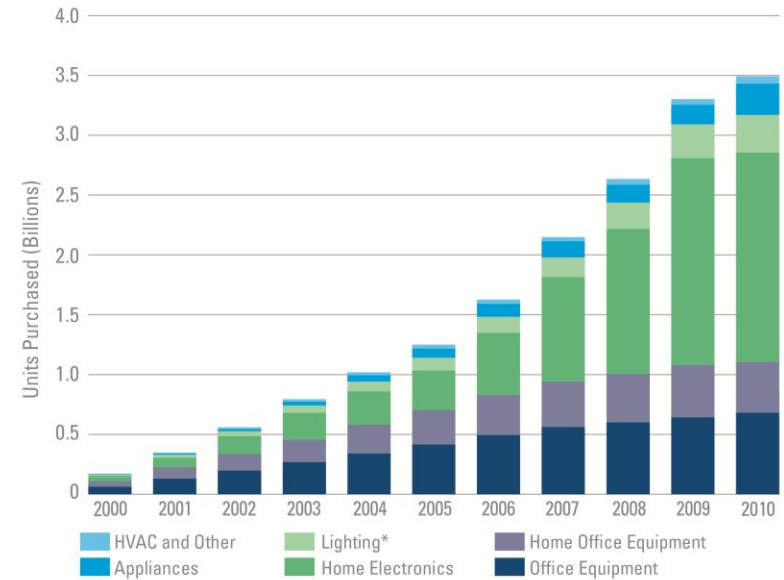


# ENERGY STAR Products



- Americans purchased about 200 million ENERGY STAR qualified products in 2010, in more than 60 categories
- Cumulative total of almost 3.5 billion products since 2000
- Products are 20% to 60% more efficient

Almost 3.5 Billion ENERGY STAR Qualified Products Purchased Since 2000



\*Lighting category does not include purchases of compact fluorescent bulbs.

# 2011 Program Priorities



- Address new challenges and opportunities
  - Third-party certification across all product types
  - Verification program
- Maintain strong brand
  - Domestic Appliances: Review criteria every 3 years OR when market share for ENERGY STAR ~35%
  - Consumer Electronics: Review criteria every 2 years and include future requirements to anticipate efficiency improvement based on market trends
- Introduce ENERGY STAR Most Efficient
- Engage consumers via social media campaigns
- Reinforce international partnerships

# 2011 Specification Highlights



- 25 updates underway in 2011, 18 expected to complete
  - Electronics/IT: Audio/Video, Televisions, Set Top Boxes, Uninterruptible Power Supplies
  - Appliances: Dishwasher, Combo W/D, Dehumidifiers
  - HVAC: Furnaces, Room AC, Ceiling Fans, Vent Fans
  - Lighting: Luminaires, Decorative Light Strings
  - Commercial Food Service: Icemakers, Dishwashers, Fryers, Ovens

# 2012 Specification Highlights



- 21 updates underway in 2012, including 14 new specifications
  - Electronics/IT: Servers, Storage, Televisions, Large and Small Network Equipment, Telephony, Battery Chargers
  - Appliances: Refrigerators/Freezers, Dishwashers, Room Air Conditioners
  - HVAC: Central Air, Water Heaters, Ceiling Fans, and Vent Fans
  - Lighting: Lamps
  - Commercial Food Service: Icemakers, Dishwashers, Fryers, Ovens
  - Home Envelope: Windows, Roofs

# Program Integrity



- Through over 19 years of shared effort, EPA and partners have built something of real value – the ENERGY STAR brand
- Maintaining the value of the brand requires ENERGY STAR products to deliver energy savings to the consumer – this is accomplished by:
  - Third-party certification of test data prior to qualification and labeling
  - Verification testing after qualification



# Program Integrity



- In just over 9 months, EPA instituted 3rd Party Certification across all 60 product categories
- EPA set criteria for Accreditation Bodies, Certification Bodies, and Labs. To date, 27 ABs, 20 CBs, and 350 labs worldwide are recognized by the program
- More than 20,000 products have been third party certified to the ENERGY STAR requirements since January 2011.
- On going verification by CBs of a percentage of all ENERGY STAR products ramping up now.

# International Objectives



- Further harmonization of efficiency metrics and requirements
  - deliver more with limited government resources
  - minimize manufacturers' cost of participation and compliance
  - ensure comparability of efficiency claims worldwide
  - facilitate specification level development based on a global data set
  - providing in-depth coordination with countries that are developing new/revised product standards
  - Consistency with metrics and requirements, but not necessary dictate exact efficiency levels

# 2011 International Plan



- Engage with partner countries to implement enhanced testing and verification
- Enhance existing ENERGY STAR relationships
  - Contribute to high-profile international energy efficiency projects.
  - Share successful approaches and best practices.
- Continue to pursue test procedure harmonization
  - Provide in-depth coordination with countries that are developing new/revised product standards.
- Interest from many countries to recognize international-based certification programs



# US-China Energy Efficiency Action Plan



- Goal: Accelerate development and adoption of energy efficiency solutions in U.S. and China
- 8 areas of cooperation, including consumer product testing and labeling
- For consumer products, U.S. and China intend to:
  - Harmonize test procedures
  - Collaborate on product verification systems
  - Exchange best practices in labeling

# Approach

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- Leverage existing invitational travel to meet with Chinese (one meeting per year)
- Focus on limited stakeholders, with limited goals
- Focus on areas of mutual interest

# Test Procedure Harmonization: Computers and Servers



# Key Activities



- July 2010: Computer standards meeting in Beijing
- August 2010: Discussion at US conference
- January 2011: conference call
- October 2011: CNIS EPA Meeting, Washington DC
- Future:
  - Participate in periodic webinars and conference calls
  - Participate in review of new test procedures with China stakeholders

# Test Procedure Harmonization: Solid State Lighting





# Key Meetings to Date



Date	Event
May 2010	US China 10 Year Framework Meeting (Washington DC)
August 2010	Technical round table to review China and U.S. LED test methods (Beijing)
October 2010	EPA-NDRC meeting on harmonization (Beijing)
October 2010	EPA-NLTC signing ceremony for cooperation on LED test method harmonization (Beijing)
October 2010	7 <sup>th</sup> China International Exhibition and Forum on Solid State Lighting (Shenzhen)

# Key Work Products to Date

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- EPA-National Lighting Test Center (NLTC) letter of cooperation
- U.S. test method presentation at China SSL 2010 conference
- Ongoing technical exchange of information
- EPA – NLTC LED Harmonization Workshop, October 17, Beijing

# LED Harmonization Workshop



- October, 2011 in Beijing
- In attendance: China: NLTC – Beijing Lighting Research Institute. US: EPA, Lighting Research Center, ICF Consulting.
- Goals:
  - 1) Work towards rapid harmonization for GB 12546-2011, China's Mandatory Standard for LED Reflector Bulbs.
  - 2) Development of roadmap for future collaboration on new Standards
- Outcome: Significant progress (1) : Harmonization achieved on approximately 60% of the specification. (2) Drafting of future collaboration roadmap underway.