



ENERGY STAR Planning for 2010

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US EPA



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Today



- Looking to 2010: EPA Planning Highlights
 - Specifications
 - Program integrity
 - Market share tracking
 - Home Performance with ENERGY STAR
 - HVAC Quality Installation
 - ENERGY STAR for New Homes
 - ENERGY STAR for Commercial & Industrial
 - National Campaigns

ENERGY STAR Specifications

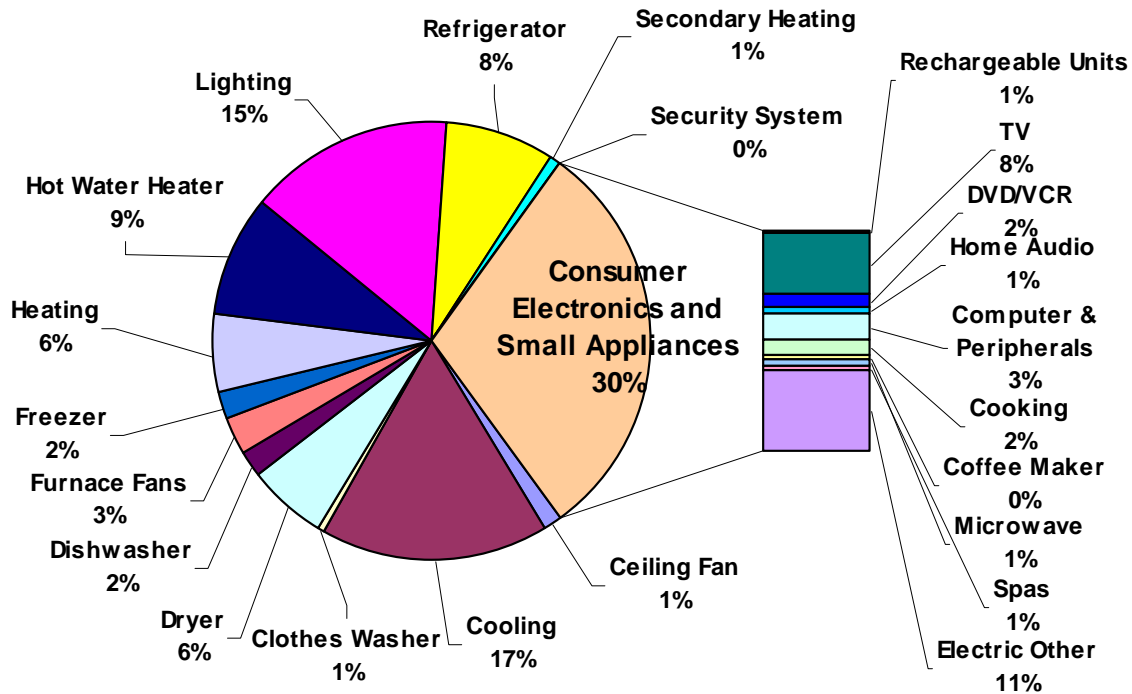


- Guiding principles
 - Significant energy (GHG) savings potential
 - Performance can be measured and verified
 - No sacrifice in performance or quality
 - Cost effective to the purchaser
 - Technology neutral
 - Effective differentiation with the label
- Typically top 25% of product models (not sales)
 - Key criteria can trump that goal
- Well documented, transparent process

ENERGY STAR Specifications



Electricity Consumption by End Use in U.S. Households



Source: EIA. Residential electricity consumption by end-use, 2009.

Specification Activities



New (in progress)

- Enterprise Storage V1.0
- Laboratory Grade Refrigerator/Freezers
- HRVs/ERVs (NRCCanada leading)

Revisions (in progress)

- Televisions V3.1
- Audio/Video V2.0
- Computer Servers Tier 2
- Game Consoles (part of Computers V5.0)
- LC HVAC

Sunsetting:

- Programmable Thermostats – 12/31/2009

Completed in FY09 (to date)	Effective Date
Ventilating Fans	1/15/09
Com. Refrigerators	4/1/09
Commercial Griddles	5/8/09
Commercial Ovens	5/16/09
Computer Servers (Tier 1)	5/15/09
Displays V5.0	10/30/09 (< 30") 1/30/10 (30-60")
Computers V5.0 (Game Consoles pending)	7/01/09
Imaging Equip. V1.1	7/1/09

Specification Activities



- **Other new specs & revisions (launch in 2009, continued work in 2010)**
 - Home Networking Equipment (new)
 - Commercial Fryers
 - Commercial Ice Machines
 - Geothermal Heat Pumps
 - Ceiling Fans
 - Dehumidifiers
 - Water Coolers
 - Pre-rinse Spray Valves (new)

ENERGY STAR Scoping



- **Connected Home**

- Smart Meter/Home Energy Monitors
- Occupancy Sensors/Lighting Controls

- **Enterprise Products**

- Data Center Uninterruptible Power Supplies (UPS)
- Data Center Networking Equipment
- Point of Sale Devices

- **Miscellaneous Products**

- Smart Plug Strips
- Coffee Makers
- Spa Baths
- Garage Door Openers
- Microwaves
- Vacuums
- Toaster Ovens
- Security Systems
- Pool Pumps
- Hand Dryers

- **Other**

- Home Storage Equipment

Program Integrity



- Annual activities
 - Market Share Assessment
 - Consumer Payback Review
 - Retail Store Level Assessment
 - Logo Use Monitoring (web and print)
 - Compliance Audit Program
 - Quality testing requirements

Compliance Audit Program



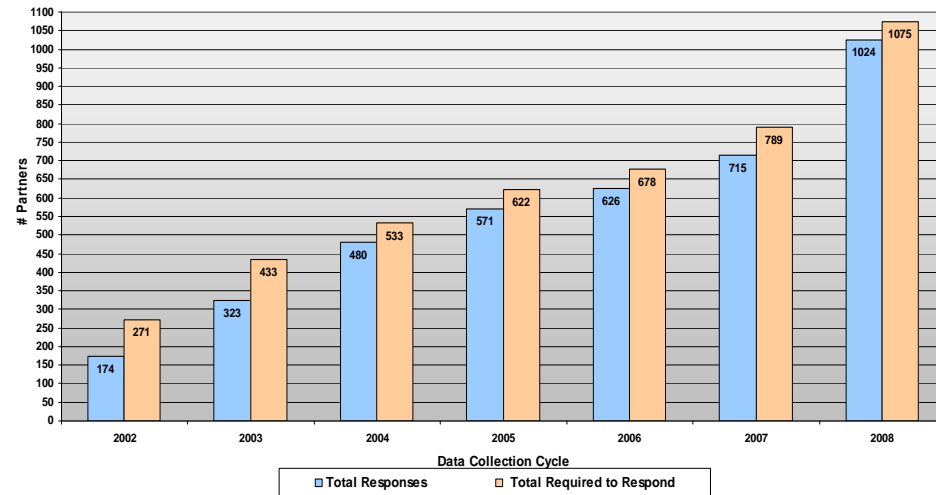
- Expanding verification testing
 - Introduced Manufacturer-funded Verification Testing for Computers
 - Guidance
 - Accreditation bodies to certify laboratories
 - Modeled after quality assurance testing for lighting
 - A model for CE and IT products not tested through certification programs
- 3rd Party Certification Programs
 - Many ENERGY STAR products tested through 3rd party certification programs
 - Include initial testing for qualification
 - Verification testing of every model, every 2-3 years
 - Subject to termination for program violations.
 - Established requirements for exhaust fans (January 2009)
 - Working with other organizations to leverage existing testing

Sales & Market Share Data

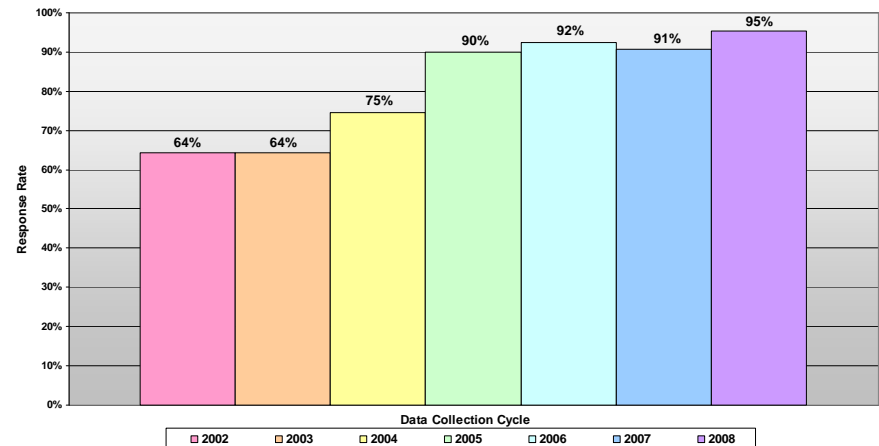


- Market share assessment - annual shipment data tracking
 - Initiated 2002, phased in
 - Partnership requirements cover most products
 - High response rate
 - Informs ENERGY STAR strategies
 - www.energystar.gov/usd

Partners that Submitted Unit Shipment Data from 2002-2008



Unit Shipment Data Response Rates from 2002-2008



Home Performance with ENERGY STAR



- Strategic basis for HPwES
 - Qualified contractors provide a full suite of services
 - Work backed by sponsor quality assurance program
- Program challenges
 - Contractor workforce development
 - Marketing program among competing programs and offers
- Addressing barriers
 - Support for the Building Performance Institute (BPI)
 - Regional marketing campaigns and web-strategies
- Alternate approaches: VA pilot
 - EPA and DOE pilot in northern Virginia
 - QA provided by a contractor-based oversight organization
 - EPA implementing marketing campaign
 - Launches Fall 2009
- HPwES programs launching in 2009/2010



TVA, Omaha Electric, Jacksonville EMC, Xcel-Colorado, New Hampshire Gas, PG&E, SMUD

HVAC Quality Installation



- In 2010, tackling verification
 - Continues to be difficult and costly to implement; but is critical
 - Possible addition of new ACCA verification standard for HVAC installation
- Strategy
 - Researching technology solutions for verification
 - Workforce training/guidance
- Developing platform will get this out to everyone— really need your help
 - Verification lessons learned
 - Feedback on contractor “tool kit”

The image shows the cover page of the ACCA Standard HVAC Quality Installation Specification. The top left features the ACCA logo (Air Conditioning Contractors of America) with contact information: 2800 Shirlington Road, Suite 300, Arlington, VA 22206, 703.575.4477, Fax 703.575.8107, and www.acca.org. The top right has the title "ACCA Standard" and "STANDARD NUMBER: ANSI/ACCA 5 QI-2007". The main title is "HVAC Quality Installation Specification" for Residential and Commercial Heating, Ventilating, and Air Conditioning (HVAC) Applications. A paragraph explains that ACCA standards are developed by industry volunteers in a climate of openness, consensus, and lack of dominance. The bottom left contains a note about the update cycle and a purchase link, and the bottom right features the ANSI logo (American National Standards Institute) and the website www.ansi.org.

ENERGY STAR for New Homes

Proposed New Specification for 2011



- Thermal by-pass checklist to reduce air-flow
- Water managed construction
- Quality framing construction to reduce thermal bridging
- HVAC quality installation to improve performance
- All refrigerators, dishwashers, clothes washer are ENERGY STAR
- Energy efficient heating and cooling equipment
- ENERGY STAR or better windows
- ENERGY STAR Advanced Lighting package or ENERGY STAR bulbs in 80 percent of the sockets
- All bathroom and ceiling fans are ENERGY STAR
- Average flow-rate for all shower heads ≤ 2.0 gal/min
- Efficient hot water distribution system and water heater
- Indoor air quality checklist
- Insulation to IECC code and better
- Tight ducts and envelope
- More stringent efficiency levels for large homes
- Use either prescriptive or performance methods to verify as ES.
- **Public comment through July 10, 2009**
- **Complete by 2010. One year to transition to new specification**

ENERGY STAR for C&I: Approach in 2010



- Increase market penetration of benchmarking
 - Additional ratings (Religious worship, Data centers)
 - Sharing of benchmarking information through sector focuses
 - Entertainment/stadiums
 - New reporting module
 - Increased training opportunities
 - Developing additional energy metrics
 - e.g. peak demand tracking
 - Incorporation of Target Finder into Portfolio Manager
 - International expansion with Canada
- Providing assistance to community initiatives
 - Campaigns and incentive programs
 - State and local policies that leverage tools
- Piloting building performance program model
 - Finalize research
 - Pilot program design
- Opportunities for CEE members
 - Increase market penetration of benchmarking
 - Increase availability of required data for customers
 - Incorporate benchmarking in program designs
 - Provide automated benchmarking services
 - Develop programs focused on building performance
 - Replicate programs of early adopters
 - Collaborate with EPA to pilot building performance program

Change the World, Start with ENERGY STAR 2009/2010



- Focus: youth (8-15) and families
- Community service projects
- National youth organization partnerships
 - Boys & Girls Clubs of America
 - PTO Today
- Local Event Tour (4 cities, Fall 2009)
- Opportunities for involvement
 - Join/Lead the movement as an ENERGY STAR pledge driver
 - Support grassroots, community-based youth service projects
 - Field a local event to recognize service projects



Evolution of Campaign Strategy



- Strategy
 - Continue successful tactics
 - Add new elements to further advance loyalty; expand partner & media engagement:

Continue

- Pledge
- Pledge driver program
- Testimonials/Profiles
- Multi-city tour
- Seasonal messaging
- Media outreach

New

- Youth
 - Past campaign success
 - Interests aligned (electronics, web)
 - Partner and media interest
- Community service?
 - Opportunity to engage kids & families
 - Opportunity for partner engagement
 - Increased media interest/greater reach

Low-Carbon IT Campaign



- Launched April 2008 to assist & recognize organizations for reduced energy use of computers & monitors
- Organizational pledge & recognition
- Free tools and technical assistance
- ~700,000 pledges to date

Next: Engaging energy efficiency program sponsors

- July: webinar/summit
- Hosts: EPA, Climate Savers
- Supporter: Microsoft
- Agenda items
 - Power management basics
 - Putting IT efficiency into context
 - Why utilities are getting involved
 - Overview of existing programs
 - Program design considerations
 - Approaches to power management programs
- Contact: Steve Ryan, EPA, 202-343-9123, ryan.steven@epa.gov


CAMPAIGN STATUS

Low Carbon IT Campaign
684,999
Computers Pledged to Power Manage.

356,550,291
LBS of Greenhouse Gas Emissions Avoided Annually.

244,035,582
kWh Saved Annually.

Check back regularly to see how your efforts and those of others are collectively making a difference!




ENERGY STAR

CERTIFICATE OF RECOGNITION

PRESENTED TO

Participating Organization

By the United States Environmental Protection Agency in recognition of their commitment to a better environment as a participant in the Low Carbon IT Campaign.

Awarded in February 2008.


Steve Ryan
ENERGY STAR
U.S. Environmental Protection Agency

Thank You!



- Discussion
 - Feedback
 - Questions
 - Ideas

- Contact
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