



ENERGY STAR[®] in 2010 and Beyond

Implications of the New DOE/EPA Partnership Agreement

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CEE Program Meeting
June 1, 2010



Learn more at energystar.gov

Today



- Background on the DOE/EPA partnership
 - Drivers and key elements of the partnership
 - Work plan for CY 2010
- Impacts on ENERGY STAR
 - Short term program enhancements
 - Ongoing program enhancement efforts

New EPA/DOE Partnership (MOU)

September 2009



- Advancing energy efficiency in buildings
- Defines agency roles and responsibilities
 - ENERGY STAR & premium products programs (EPA)
 - National Building Rating Program (DOE)
 - ENERGY STAR identifies top-performing residential and commercial buildings within the National Building Rating Program (EPA)
 - Each agency supports the other
- Stands up a Governing Council
- Incorporates stakeholder participation

ENERGY STAR Transition



- EPA staff assigned and actively engaged across all product categories:
 - Appliances: Kristen Taddonio
 - Lighting: Peter Banwell and Alex Baker
 - Windows: Doug Anderson
 - Water Heaters: Abigail Daken and Steven Ryan
- DOE's Bryan Berringer detailed to EPA to coordinate D&R support through transition.
- EPA's Jean Lupinacci to DOE 1 day/wk on building rating program
- Energy Efficiency Program Sponsor account management support through ICF with product specific technical support from D&R.

ENERGY STAR Program: Planned Enhancements



- Plan released December 2009
- Focused on ensuring long-term program integrity/relevance
 - More frequent spec updates
 - Enhanced efforts on product testing
 - More products covered
 - New effort to recognize super efficient products

Feedback on the Enhancement Plan for ENERGY STAR Products



Enhanced Program Plan for ENERGY STAR Products dated Dec. 2, 2009 comment period ended on Jan. 8, 2010 (48 comments received).

Comments and response are available at: www.energystar.gov/mou

Key Issues/Concerns:

- Overall
 - 15 commenters agree & 3 commenters disagree w/ approach
- Memorandum of Understanding
 - Enhanced Stakeholder Outreach - Stakeholders want to be heard & valued
 - Governing Council – Establish a secondary Advisory Committee & Quarterly meetings
 - National Building Rating Program – Provide more information
- New ENERGY STAR Products
 - Share draft version of the products w/ stakeholders each year before being finalized
 - Study dilution of ENERGY STAR brand if extended to more products
 - Must have significant energy savings individually or collectively
- Frequent Updates to ENERGY STAR Criteria
 - Top 25%
 - Too frequent revisions will lead to confusion in the market
 - 2 years is very aggressive (3 - 5 year payback)
 - 2 years rapidly-evolving products, 3 years longer-lived products

Feedback on Enhancement Plan for ENERGY STAR Products (con't)



Key Issues/Concerns:

- Enhanced Testing Procedure Review, Improvement, and Development
 - Use consensus standards
 - Keep up-to-date
 - More information on the test procedures
- Enhanced Product Verification, Testing, and Enforcement
 - Cost to manufacturers and possible delays delivering products
 - Need more details: # models tested, how often, how units selected, lab qualified, etc.
 - Clarify lab accreditation and 18 month implementation
 - Allow for in house testing
 - Stiff fines for enforcement
 - Delisting process/protocol
 - Test data should be publicly available
 - Third Party Testing: ISO 17025 compliant, extensive re-qualification procedures, use third party verification program, cost and delays
- Development of Quality Installation Programs in Key Product Areas
 - Use consensus standards
- Top-Tier Program (Super Star)
 - 7 commenters agree & 8 commenters disagree w/ approach

Next Steps: Revise Enhancement Plan for products based on comments received.



GAO Report and Response



- GAO product certification process audit
 - Successfully qualified fake products
- Report released March 2010
- DOE/EPA Response
 - Accelerated program enhancements already underway
 - Proactive communication with stakeholders
 - Changes effective March 30, 2010
 - Manufacturers may not label products until qualifying product information (including lab reports) is approved by EPA
 - ENERGY STAR mark available only after qualifying product information is submitted and approved by EPA

Overview of 2010 Work Plan



- Joint planning for ENERGY STAR and Buildings Programs
- Reflects stakeholder feedback
 - ENERGY STAR products enhancement plan (released Dec. 2, 2009)
 - Integrated lighting strategy (released Dec. 4, 2009)
 - Stakeholder comments (Jan. 8, 2010)
 - Response to Key Issues/Concerns (May 12, 2010)
- Covers coordinated plans for CY 2010
 - ENERGY STAR products: new and revised specs
 - Test procedures, certification, verification, and enforcement
 - Quality installation
 - Higher tier program
 - National Building Rating Program
 - Commercial and residential
 - ENERGY STAR labeling of top performers
 - Building retrofits
 - Oversight by Governing Council
- Next steps
 - Stakeholder outreach & ongoing coordination meetings
- Stay with us: www.energystar.gov/MOU



Short Term Program Enhancements

Testing Procedures and Technical Analysis (DOE)

- Test Procedure Work Plan across 3 areas
 - Begin updating existing testing procedures for approximately 5 existing ENERGY STAR products for FY 2010
 - Develop a priority list of test procedures (Q3 2010)
 - Priority list available (Q4 2010)
 - Begin additional new test procedures to support for approximately 3 new ENERGY STAR products for FY 2010
 - Develop a priority list of test procedures (Q3 2010)
 - Priority list available (Q4 2010)
 - Enhanced test procedure review; Systematic plan (Q3 2010)
 - Plan for reviewing testing procedures and identifying improvements across covered and non-covered products (Covered product are those addressed under the minimum standards of energy efficiency per the Energy Policy and Conservation Act)
- Technical analysis
 - Cost effective measures database (NREL) -- Integrates existing DOE databases of building retrofit measures costs into national database (Alpha release Q1 2010)
 - Roadmap for future enhancement and maintenance (Q1 2010)
 - Integrate into ENERGY STAR program support (Q4 2010)
 - Support more than 60 residential product categories

Historic Approach to ENERGY STAR Qualification and Testing



- EPA enters into Partnership Agreements with product manufacturers and issues program identity guidelines
- Manufacturing Partners submit test data to EPA to qualify their products within a designated timeframe; Lab accreditations required for certain product categories
- EPA reviews test data and adds products to list of qualified products
- EPA verifies energy performance through its compliance audit program

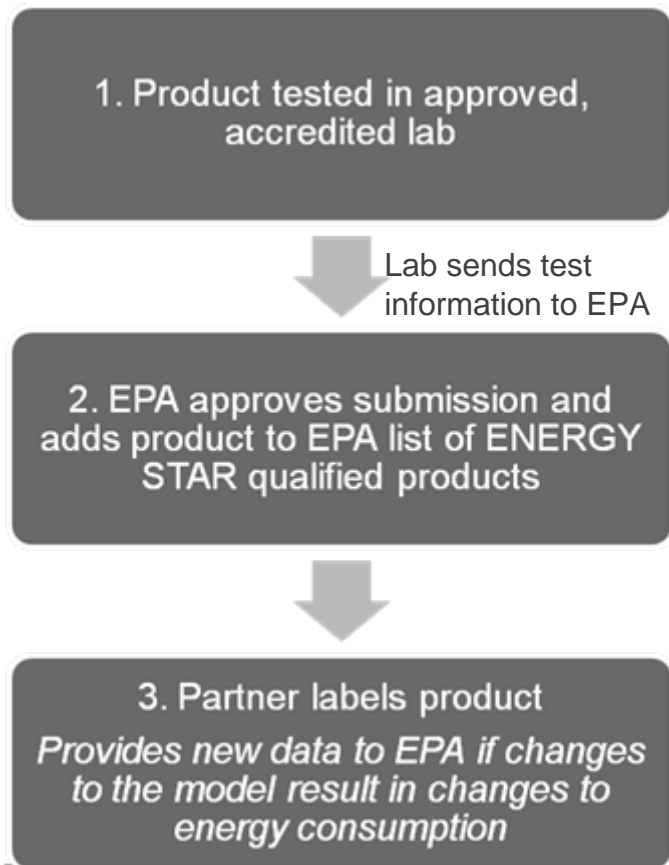
Key Elements of Enhanced Testing Requirements



- Testing and reporting prior to qualification
 - Ensure that EPA has testing information on all products prior to labeling
 - Require test data from accredited labs that is representative of the product in the marketplace
- Continued testing after qualification
 - Verify that products continue to meet the ENERGY STAR requirements regardless of changes in the production process
 - Provide consumers with confidence that ENERGY STAR products are delivering the savings they expect

EPA Qualification Testing

- EPA conducts qualification testing for all products



- EPA will modify partner commitments to reflect this new requirement.
- All testing conducted in accredited laboratories
 - Will consider ISO 17025 where appropriate
 - Other accreditations may be appropriate for some products
 - Third party certification programs can serve this function if they include initial testing in accredited labs as a criteria
 - Pre-approval and lab submittal requirements instituted across all product categories-effective March 30, 2010
 - Propose new qualification requirements May 30, 2010
 - New qualification requirements final July 19, 2010

EPA Market-Based Verification Testing



Scope: All ENERGY STAR Product Categories

Qualification Testing

Purpose: Ensure that testing is conducted as required by ENERGY STAR specification and that lab submits test results to EPA that are representative of products sold to customer.

1. Product tested in approved, accredited lab

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Lab sends test information to EPA

2. EPA approves submission and adds product to EPA list of ENERGY STAR qualified products



3. Partner labels product
Provides new data to EPA if changes to the model result in changes to energy consumption

Verification Testing

Purpose: Ensure that products continue to meet ENERGY STAR requirements.

1. Product selected for testing

Third-party administrator facilitates product selection once or twice a year based on certified product (if certification program) or ES QP list (if EPA-selected administrator)



2. Manufacturer pays third-party to administer independent, off-the-shelf or off-the-line witnessed testing



3. Third party administrator has products tested as required and shares results with EPA



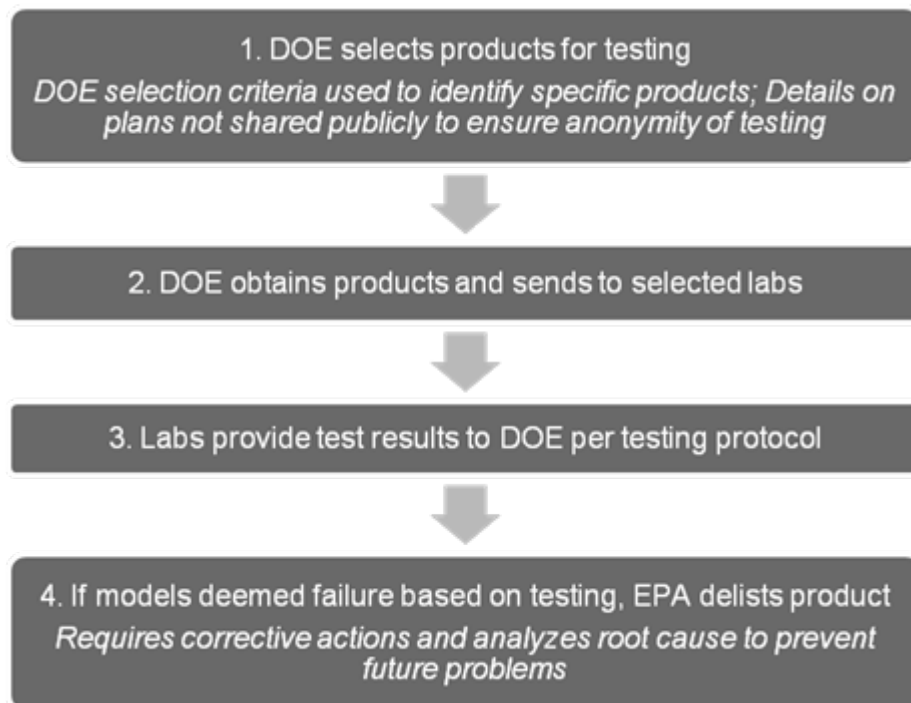
4. If models deemed failure based on testing, EPA delists product
Requires corrective actions and analyzes root cause to prevent future problems

DOE Verification Testing

Scope: All ENERGY STAR Product Categories (prioritize DOE-covered products)

Process

Purpose: Ongoing government testing program to verify energy performance of product in the market against reported energy performance data.



Roles

DOE Role

- Select products
- Select labs
- Obtain products and send to labs
- Work with labs to obtain test results
- Refer test failures to EPA

EPA Role

- Take enforcement action where products are deemed failures based on testing
- Work with labs to obtain test results
- Refer test failures to EPA

Milestones for Implementing Enhanced Qualification Testing Requirements



Date	Action
May 3	Release for Comment: Proposed requirements for Accreditation Bodies (COMPLETE)
May 17	Release for Comment: Requirements for laboratory accreditation for all ENERGY STAR product specifications and EPA process for approving labs (COMPLETE)
May 30	Release for Comment: Proposed requirements for qualification and verification testing for all product categories, including requirements for certification programs
June 14	Finalize: Requirements for Accreditation Bodies and start accepting applications
	Finalize: Laboratory accreditation requirements and recognition process
July 19	Finalize: Certification program requirements for relevant product categories* and begin accepting applications from certification programs
	Finalize: Qualification (and verification) testing requirements for relevant products (CE/IT and lighting products)
July – December	Recognize: Certification programs and accredited laboratories
September	Finalize: New partner commitments (requiring independent testing) for all products, and require partners to sign agreement to continue partnership
November 30	All new product models in specified CE/IT and lighting categories require testing in EPA-recognized, accredited laboratory
December 30	Required participation in a third-party certification program for all products in specified categories



* Specified categories for certification programs include HVAC products, Appliances, Windows, Water Heaters, Commercial Food Service equipment, External Power Supplies, Battery Charging Systems, Water Coolers, and Vending Machines.

ENERGY STAR Market Data Quality Improvements



- Annual unit shipment data program
 - EPA requirements phasing in since 1992
 - Now cover 55 categories
 - 96% compliance by partners
 - DOE added requirements for CFLs, SSL, water heaters, windows*
 - Enhancement plan proposed including remaining products
- More information
 - Attend CEE Evaluation Committee session
 - Thursday June 3, 3:30-5:30 PM
 - Visit: www.energystar.gov/usd



Ongoing Program Enhancement Efforts

New/Revised Specifications



- More REVISIONS: 21 actions underway (7 to be done in 2010)
 - Existing products divided into short-lived (15), long-lived (26), and middle (8)
 - 25% of rapidly-evolving product with specifications less than 3 years old being addressed
 - 100% of long-lived products with market share of 35% or more as of 2008 data are being addressed
 - 100% of products with lifetimes in the middle are being addressed (to include reviews)
 - EPA in consultation with DOE will develop list of products for 2011 specification revision (Q1 2011)
- More NEW Products as resources allow
 - Focus on miscellaneous energy use, commercial food service, and enterprise products (up to 10 prospects)
 - Scoping / taking comments on priorities around additional 7 or 8 products
 - EPA in consultation with DOE will develop list of new products for GC review (Q1)
- Partnership agreements updated for 4 product categories so that annual shipment data provided to EPA across all products (Q3 2010)

Quality Installation



- Quality Installation of ENERGY STAR products (DOE/EPA)
 - Develop quality installation programs where necessary for consumer to receive claimed savings (e.g. Quality HVAC)
 - Coordination/planning meeting (Q2 2010)
 - Installation specifications
 - Quality assurance and quality control protocols
 - Worker certification requirements in geothermal heat pumps, windows, and Insulation and air sealing
 - Development of programs (ongoing 2010)

Top Tier Products Program

- ENERGY STAR is exploring how to structure an effort to promote a “top-tier” of energy efficient products
- EPA and DOE are evaluating:
 - Consumer needs and how a top tier effort can help
 - How to protect ENERGY STAR’s current position in the market
 - The energy savings potential
 - The most effective options from a marketing/brand analysis

Any new program would:

- Be nested within the current ENERGY STAR program
- Draw on existing ENERGY STAR infrastructure
- Be applied to specific product categories case-by-case
- Be provided to stakeholders for comment

Top Tier Products Program

- Next Steps
 - Research proposal:
 - Scope of work (Spring 2010)
 - Data collection (Spring to Summer 2010)
 - Review existing data
 - Stakeholder involvement and contribution of data
 - Gauge consumer attitudes and expressed needs
 - Develop consumer profiles; specific demographic information
 - Qualitative research (Fall 2010)
 - Data collection
 - Focus groups
 - Findings and Recommendations (November 2010)
 - Stakeholder outreach (November 2010)
 - Ongoing coordination with DOE

National Energy Rating Program for Homes



Building on existing programs, tools, and services, the National Program will strengthen the home retrofit market by significantly enhancing --

- standardization and quality assurance in the home energy retrofit industry;
- consumer understanding and confidence in the value of home energy performance;
- confidence among lending institutions to provide favorable financing for home energy retrofits; and,
- the ability of trained workers to enter the private sector retrofit market as Weatherization work funded by the Recovery Act ramps down.

National Program for Homes





Proposed Long-Term Implementation

DOE will:

- Develop voluntary program
- Implement program in partnership with states, local governments, industry, and other organizations
- Support existing retrofit industry
- Support external organizations to --
 - Certify workers
 - Accredited training programs
 - Conduct quality assurance
- Continue to improve the program
- Develop comparable program for commercial buildings

Upcoming Request for Information (RFI)



- RFI will cover topics including...
 - Objectives / rationale
 - Guiding principles (e.g., low cost, transparent, easy)
 - Options for Assessments and Ratings
 - Site energy, source energy; energy cost; carbon
 - Efficiency or consumption metric
 - Options for recommendations for energy efficiency improvements
 - Options for presentation of information
 - Scale
 - Benchmarks (e.g., new home, average home)
 - Improvements
 - National Home Energy Registry
 - Quality Assurance
 - Home professionals (e.g., auditors, assessors)
 - Software
 - 3rd party verification of label
 - Data management

Pros

Cons

Initial Directions



Next Steps

- Further analysis of options for measuring home energy performance
 - Sensitivity analyses of HES Pro
 - Consideration of how utility bills may be used to inform rating
 - Looking for additional home data that includes information on utility bills, building characteristics, and possibly behavioral characteristics
- 2 Requests for Information (June 2010)
 - RFI #1 on Performance Metric, Consumer Information
 - RFI #2 on Workforce Standards
- Develop and Initiate Pilots
 - Seattle pilot: underway
 - HUD/FHA pilot under design
- Stakeholder Engagement
 - Additional webinars
 - Focused discussions with stakeholder groups planned for June/July
 - Particular focus on questions raised in RFI #1
 - States, utility, contractors, environmental groups, building rating groups

Timeline



April 2010

May 2010

June 2010

July 2010

August 2010

September 2010

Fall 2010

Audit and Rating Tools

Release HES Pro beta version May 6, 2010

Debug HES Pro beta version

Complete report comparing existing energy audit software

Design HES PRO evaluation tests

Conduct parametric analysis using generated data to determine key inputs for asset rating as well as potential use of utility bill information

Conduct sensitivity analyses using actual data from Seattle pilot and other sources in various climates

Release preliminary asset version of HES Pro and updated operational version of HES Pro

Pilots

Begin Seattle pilot, audits of 5000 homes

Evaluate initial data from Seattle pilot

Begin DOE/HUD pilot

Continue Seattle and HUD pilots through 2011

Worker Skills and Protocols

Compile existing technical standards.
Convene technical experts to review and draft standard work protocols.
Complete draft report with technical standards, standard work protocols, and skill standards.

Finalize Standard Work Protocols & Skill Standards

Issue draft standards for public and industry review

Conduct interagency and stakeholder outreach; solicit comments

Timeline



April 2010

May 2010

June 2010

July 2010

August 2010

September 2010

Fall 2010

Consumer Behavior

Review behavioral research

Conduct focus groups

Use feedback to inform label design

Program Design

Study of rating programs

Issue RFI; Post in Federal Register & DOE website; email to comprehensive stakeholder list

Review, categorize, and analyze comments

Present draft program design

Finalize Performance Metric & Label

Launch National Building Performance Assessment & Rating Program

Begin Implementation of National Program with Partners

We Welcome Your Input



- How can a federal program best support your existing efforts in this area and help scale up retrofit market?
- Data
 - Do you have any home energy data that you could share with DOE for purposes of analysis?
 - We're particularly interested in home data that includes building characteristics information, behavioral information, and utility bill info
- Other ideas

New EPA Staff Responsibilities & Contact Information



- Testing and Verification
 - Kathleen Vokes: vokes.kathleen@epa.gov, 202-343-9019
 - Eamon Monahan: monahan.eamon@epa.gov, 202-343-9589
- Appliances: Kristen Taddonio
 - Kristen Taddonio: taddonio.kristen@epa.gov, 202-343-9234
- Lighting: Peter Banwell and Alex Baker
 - Peter Banwell: Banwell.peter@epa.gov, 202-343-9408
 - Alex Baker: Baker.alex@epa.gov, 202-343-9272
- Windows: Doug Anderson
 - Doug Anderson: anderson.doug@epa.gov, 202-343-9350
- Water Heaters & HVAC
 - Abigail Daken, daken.abigail@epa.gov, 202-343-9375
 - Steve Ryan, ryan.steven@epa.gov, 202-343-9123

New DOE Staff Responsibilities & Contact Information



- Verification Testing
 - Richard Karney: richard.karney@ee.doe.gov, 202-586-9449
- Test Procedures
 - Bryan Berringer: bryan.berringer@ee.doe.gov, 202-586-0371
 - Rick Orrison: richard.orrison@ee.doe.gov, 202-586-1633
- Appliance Rebates
 - Lani Mcrae: lani.macrae@ee.doe.gov, 202-586-9193

General Contacts/Information



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- Information
 - www.energystar.gov/mou
 - www.energystar.gov/testingandverification