



ENERGY STAR® Products Enhanced Testing and Verification: Water Heaters

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Agenda



- Overview of Enhanced Testing and Verification Requirements for ENERGY STAR
- New proposed requirements for Water Heaters
 - Certification programs
 - Lab accreditations for Qualifying and Verifying Products
 - Frequency of testing
- Discussion of product considerations specific to Water Heaters
 - Leveraging existing certification programs
 - Use of in-house laboratories
 - Challenge testing
 - Tolerances
 - Obtaining samples from the marketplace

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

ENERGY STAR Enhanced Testing and Verification – Market-Based Testing Program

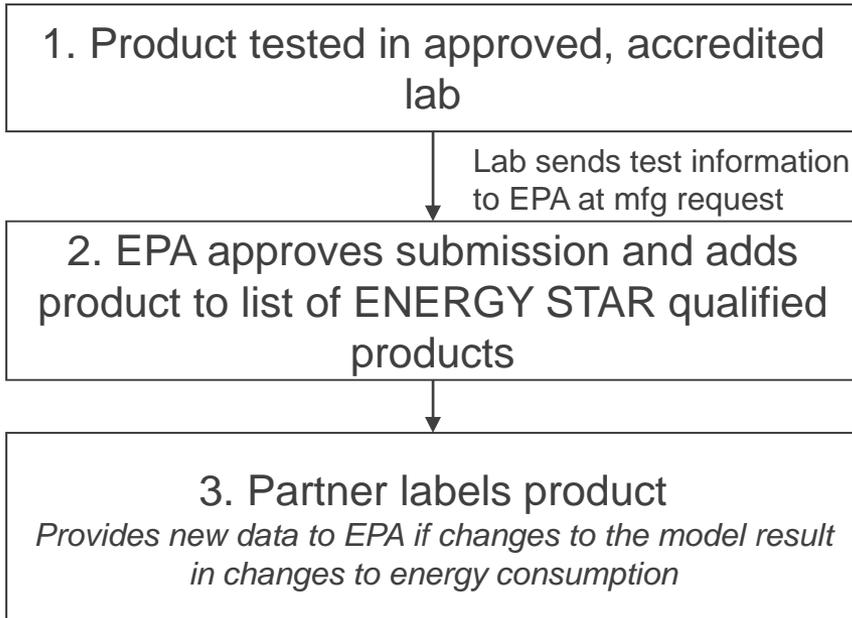


Market-Based Testing

Scope: All ENERGY STAR Product Categories

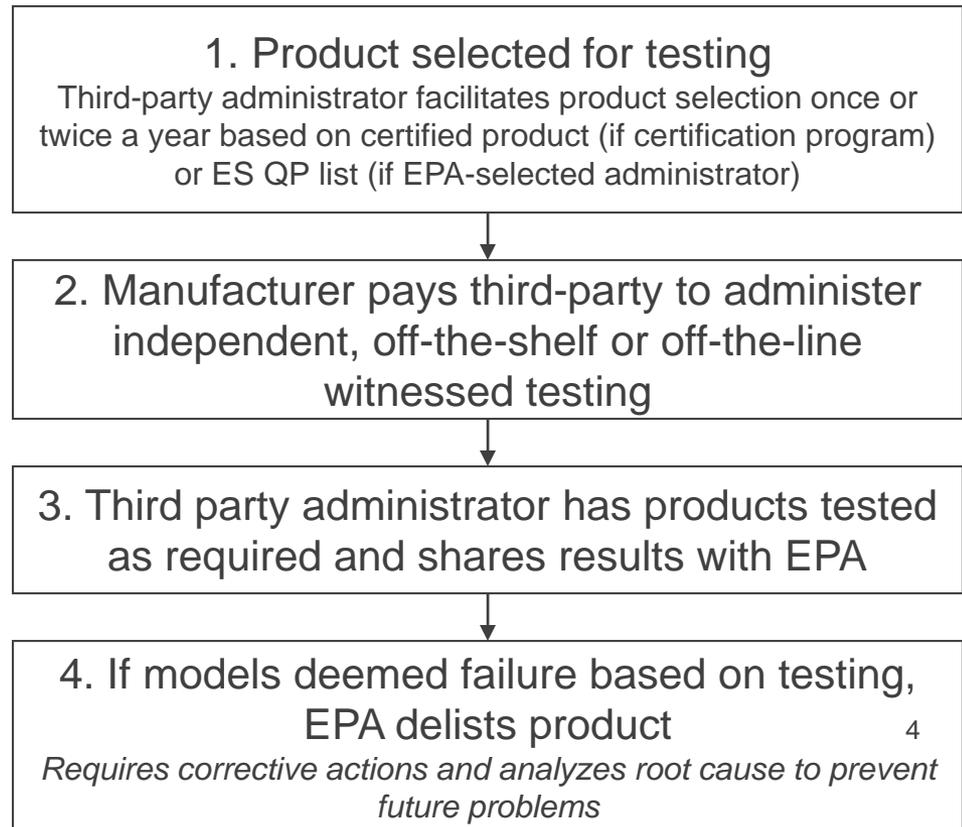
Qualification Testing

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



Verification Testing

Purpose: Ensure that products continue to meet ENERGY STAR requirements



Third Party Certification and Verification Testing



- Laboratory requirements – preference to third-party labs with considerations for manufacturers in-house labs
- Formal market-based certification programs to administer testing
- Verification testing to be conducted on all products within certain timeframe
- Potential for multiple certification/verification programs to serve this function
 - Off-the-shelf testing where possible
 - Combination of random testing and selected products
- Challenge testing requirements

Third Party Certification and Verification Testing



- Certification and verification testing program administration
- Qualification testing
 - Laboratory Requirements
- Verification testing
 - Laboratory Requirements
 - Process for identifying and selecting products
 - Process for obtaining products
 - Number of units to be tested
- Challenge testing
- Partner responsibilities

Third Party Testing – Program Administration



- Third-party entity will administer certification and verification testing program (more than one third-party may offer such programs as long as they meet the qualification criteria)
- Qualifications
 - Proficiency in measurement testing or statistics
 - Demonstrated impartiality regarding the outcome of testing
 - Quality control measures (e.g., ISO/IEC Guide 65:1996)
 - May not require membership for product to be certified
 - Need to be approved by EPA
- Responsibilities
 - Identify and select qualified laboratories for testing
 - Work with manufacturers to test ENERGY STAR products for both initial qualification and verification purposes
 - Ensure testing remains on schedule
 - Provide detailed test reports and summaries of results to EPA/DOE

Third Party Qualification Testing



- Third-party independent lab will be required by default
 - In-house labs may be allowed
- Products may not be certified based on the rating of another product unless differences do not impact the energy performance of the product
- To certify product, manufacturer must provide information on the distribution of product (for purposes of conducting verification testing)

Comments: How will in-house testing be an improvement? Will there be additional requirements for in-house labs? Will these lab requirements be adequate for verification testing?

Existing Lab Accreditation Requirements



- Ventilating Fans
 - Independent, Third-party lab by a signatory to one of the ILAC, APLAC, or NACLA MRAs required for both qualification and verification testing
- Commercial Refrigeration
 - CEC approved lab or data verified by a certification body accredited to Standards Council of Canada required for qualification

Third-Party Verification Testing: Laboratory Requirements



- Third-party independent accredited lab will be required by default
- Witness testing may be allowed on a product-specific basis

Third-Party Verification Testing: Selecting Products



- Selected by third-party program, allowing for input from EPA/DOE and other stakeholders
- Must test all certified products at least every three years
- Need to ensure that products still available on market and that the current specification applies

Third-Party Verification Testing: Obtaining Products



- Preferred option is to obtain products from the marketplace
- Other option for prohibitively expensive items or for items not available “off-the-shelf”
 - Random selection of product off production line
 - Testing at manufacturer laboratory under supervision

Third-Party Verification Testing: Sample Size



- The number of units to be tested should be at least the same as required for qualification

Third Party Testing: Partner Responsibilities



- Partner is required to pay for third-party certification of product
 - Verification testing will be included in the fee
 - Testing will occur at least annually

Water Heater Product Considerations



- Leverage existing certification programs under AHRI and SRCC
- Model after vent fan certification and verification testing requirements
 - http://www.energystar.gov/ia/partners/product_specs/program_reqs/vent_fans_prog_req.pdf

Next Steps



- Comments due April 30, 2010
 - ENERGYSTARVerificationProgram@energystar.gov
- Complete draft including product-specific requirements – May 2010
- Finalize Requirements – July/August 2010
- Phase-in verification testing requirements allowing adequate time for certification programs to be developed and lab accreditation to occur

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