



ENERGY STAR® Products

Enhanced Testing and Verification: Consumer Electronics and IT Products

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Agenda



- Overview of Enhanced Testing and Verification Requirements for ENERGY STAR
- Products Covered
- New proposed requirements for CE/IT products
 - Verification program administration
 - Lab accreditations for qualifying and verifying products
 - Frequency of testing
- Discussion of CE/IT considerations
 - Building off the *Computer Verification Testing Guidelines and Procedures Manual*
 - Testing products sold through VARs and expensive products
 - Testing products sold through non-retail channels (datacenter products, STBs, other)

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

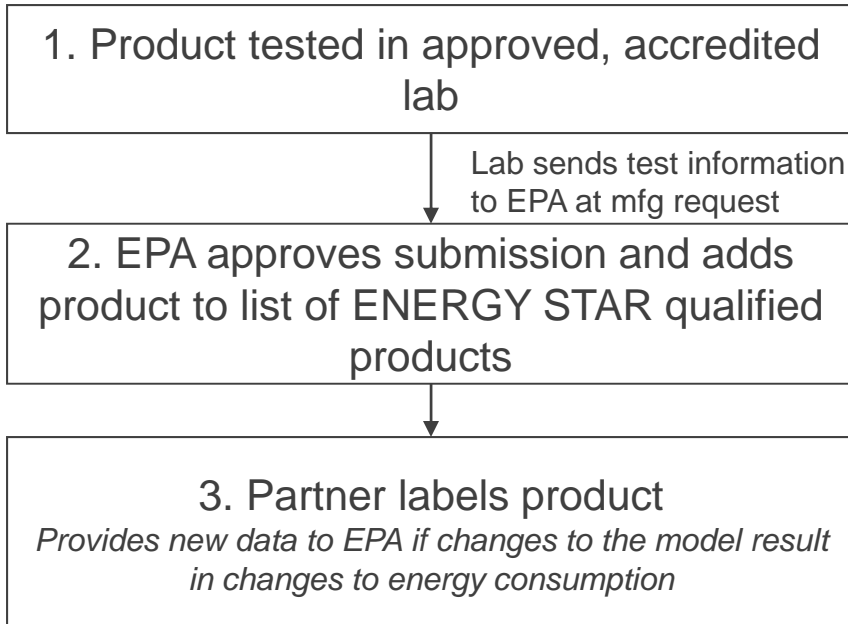


Market-Based Testing

Scope: All ENERGY STAR Product Categories

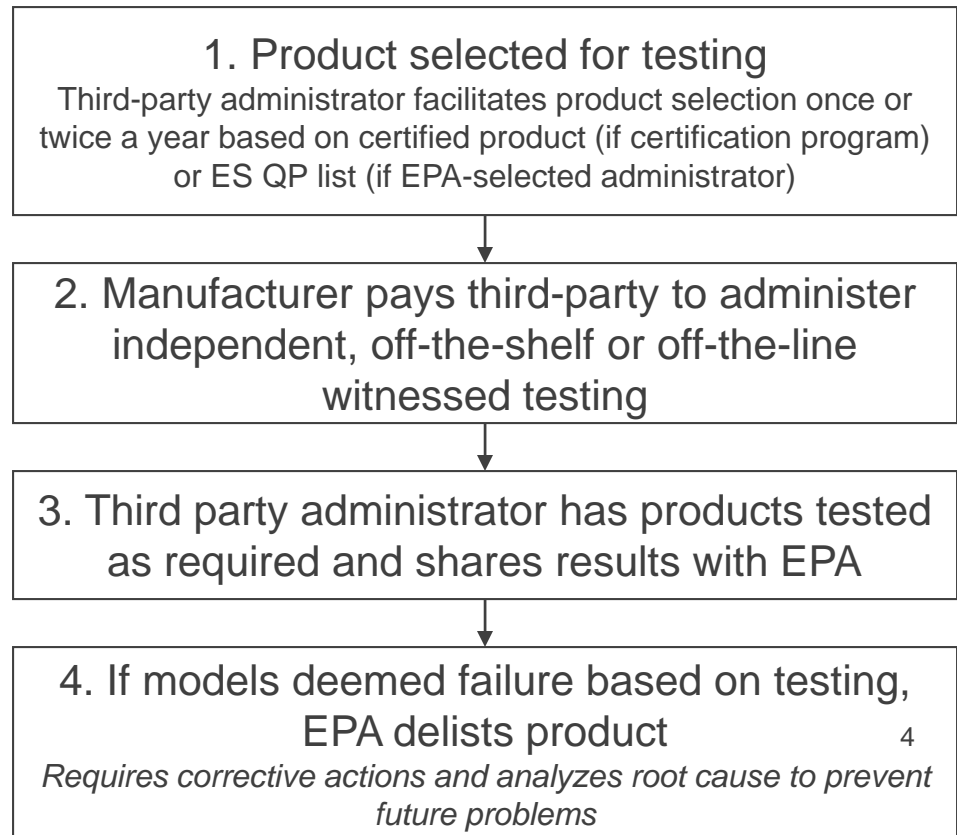
Qualification Testing

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



CE/IT Products Covered



- Audio/Video Equipment
- Computers
- Data Center Storage
- Decorative Light Strings
- Digital to Analog Converter Boxes
- Displays
- Imaging Equipment
- Servers
- Set-Top Boxes
- Small Network Equipment
- Telephony
- Televisions
- Uninterruptible Power Supplies

Qualification and Quality Assurance Testing



- Laboratory requirements – preference for third-party labs with considerations for manufacturers' in-house labs
- No formal certification program
- Limited verification testing with a third-party administrator to oversee each product category
 - Off-the-shelf testing where possible
 - Combination of random testing and selected products

Qualification and Quality Assurance Testing (*cont.*)



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

Quality Assurance Testing: Program Administration



- A third-party entity will be selected by EPA/DOE to administer the testing program for a product category (the same third party may be selected to administer testing for more than one product category)
 - Selection criteria will include cost of testing as well as ability to satisfy qualification criteria
- Qualifications
 - Proficiency in measurement testing or statistics
 - Demonstrated impartiality regarding the outcome of testing
- Responsibilities
 - Identify and select qualified laboratories for testing
 - Work with manufacturers to obtain funds and information for required testing
 - Ensure testing remains on schedule
 - Provide detailed test reports and summaries of results to DOE/EPA

Qualification Testing: Laboratory Requirements



- Third-party independent lab will be required by default
 - In-house labs may be allowed on a product-specific basis

Comments: Concern about costs, capacity, and time-to-market associated with third-party labs; Recommendation to consider testing programs that allow for testing at manufacturers' labs with oversight.

Quality Assurance Verification Testing: Laboratory Requirements



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

Comments: Requests to use in-house labs with appropriate accreditation; Support for independent testing in third-party labs

Quality Assurance Verification Testing: Selecting Products



- Need to ensure products are available on market and determine applicability of current requirement based on date of manufacturer.
- Confirm product selection with manufacturer and request list of at least three places to obtain the product.
- Limitations for how many products selected per manufacturer, allowing flexibility to test more products if necessary (e.g., manufacturer product failures).

Quality Assurance Verification

Testing: Selecting Products



- Selected by panel with final approval by EPA/DOE
 - Panel should be comprised of members from industry, EEPS, and DOE/EPA
- For 50% of models selected, basic models will be randomly selected from the list of ENERGY STAR products
- For 50% of models selected, additional basic models will be selected using the following factors:
 - Basic models and product classes from manufacturers for which previous basic models were not compliant
 - Third party referrals regarding the accuracy of ratings from third parties such as competitors, consumers, consumer groups or regulatory agencies will be considered
 - Models new to the market, particularly from brands or manufacturers which are new market entrants
 - Models with high sales volumes

Quality Assurance Verification

Testing: Obtaining Products



- Preferred option is to obtain products from the marketplace
 - If more than one sample is required for testing, must obtain products from different locations and at least two of the samples may not be from the same geographic area
- 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

Comments: General support for off-the-shelf testing

Quality Assurance Verification

Testing: Sample Size



- The number of units to be tested should be the same as required for qualification – dependent on individual product specification
- Additional testing triggers will also be applicable per product specification requirements
 - e.g., imaging equipment
 - if tested unit is within 10% of the TEC criteria, one additional unit should be tested
 - if tested unit is within 15% of the OM criteria, two additional units should be tested

Quality Assurance Verification Testing: Partner Responsibilities



- Partner is required to pay the third-party administrator for testing of selected products
 - Testing will occur once or twice a year depending on the product

Considerations for CE/IT Products



- Building off the Computer Verification Testing Guidelines and Procedures Manual
 - http://www.energystar.gov/ia/partners/downloads/Computer_Verification_Testing_Guide_V1.0.pdf
- Testing products sold through VARs and expensive products
- Testing products sold through non-retail channels (datacenter products, STBs, other)

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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