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# ENERGY STAR® Products Enhanced Testing and Verification: Lighting Products

*Kathleen Vokes, US EPA*  
[vokes.kathleen@epa.gov](mailto:vokes.kathleen@epa.gov)

# Agenda



- Overview of enhanced testing and verification requirements for ENERGY STAR
- Products covered
- Current approaches to lighting testing
  - QA-4 for RLF
  - Third party testing and verification program for CFL, SSL and Integral LED Lamps
- Proposed requirements for luminaires and lamps
  - Testing for qualification
  - Testing for verification
  - Verification program administration
- Discussion of lighting product considerations
  - Lab accreditations
  - Third-party certification of initial testing

# 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

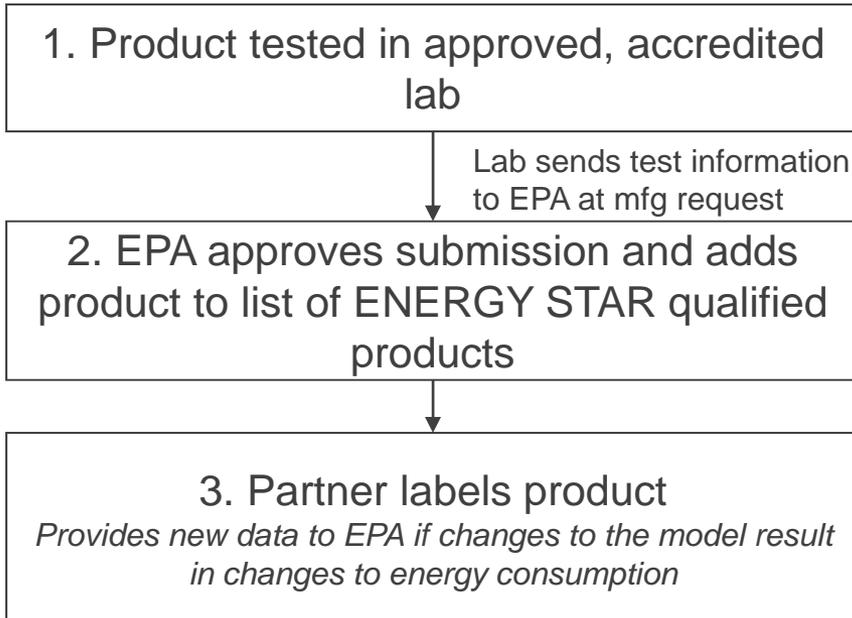


## Market-Based Testing

Scope: All ENERGY STAR Product Categories

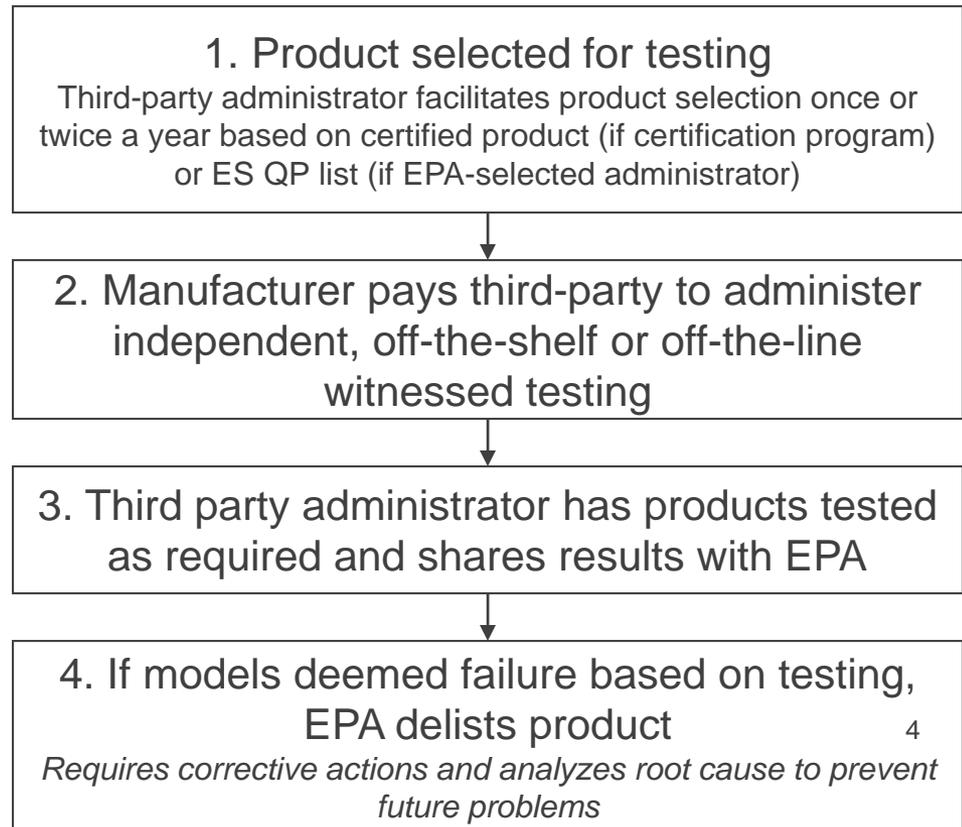
### Qualification Testing

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



# Lighting Products Covered

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- Compact Fluorescent Lamps
- Integral LED Lamps
- Residential Light Fixtures
- Solid-State Lighting

# Current Approach to Testing: RLF



- Testing for qualification requires accreditation by NVLAP or a signatory to the ILAC, APLAC, or NACLA MRAs
- Verification testing includes testing in third-party lab accredited by NVLAP
  - Manufacturer can select the laboratory
  - Limited verification testing
  - Off-the-shelf testing approach
  - Testing conducted twice a year
- Verification testing program described outside actual product specification

# Current Approach to Testing: CFLs, SSL, Integral LEDs



- Testing for qualification requires a third-party lab; accreditations vary
- Verification testing includes testing in third-party lab accredited by NVLAP
  - Third-party testing program administrator runs process
  - Testing currently run through Intertek (for CFLs)
  - Verification testing for 20% of products per year
  - Off-the-shelf testing approach
  - Testing conducted twice a year
- Verification testing program described within actual product specification

# Proposed Testing Approach for All Lighting Products



- Testing for qualification
  - Consistent approach regarding lab accreditation requirements and use of third-party labs
  - Requirement for product to be certified by third-party according to ISO Guide 65
  - Products will need to be retested if changes in components are made after qualification that impact test results
  - Models cannot be relisted without a change in the model number
- Testing for verification
  - Consistent approach regarding lab accreditation
  - Third-party administrator will facilitate all testing, including lab selection (manufacturer will pay third-party administrator)
  - Program will target 20% of the total number of qualified products each calendar year; manufacturer-funded testing
- General requirements
  - Testing requirements will be separate documents referenced in product specifications
  - General operating procedures including enforcement activities will be standardized across all ENERGY STAR products

# Proposed Approach: Verification Program Administration



- A third-party entity will be selected by EPA/DOE to administer the testing program
  - 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

# Discussion of Lighting Product Considerations: Lab Requirements

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- Third-party independent lab will be required by default
  - Need to determine if use of in-house labs may be allowed for qualification and/or verification

# Discussion of Lighting Product Considerations: Certification

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- Requirement to have certified testing results for qualification (ISO Guide 65)

# Next Steps



- Comments due April 30, 2010
  - [ENERGYSTARVerificationProgram@energystar.gov](mailto:ENERGYSTARVerificationProgram@energystar.gov)
- Complete draft including product-specific requirements – May 2010
- Finalize Requirements – July/August 2010
- Phase-in verification testing requirements with new lighting specifications

# Contact Information



- Kathleen Vokes, US EPA  
[vokes.kathleen@epa.gov](mailto:vokes.kathleen@epa.gov) // 202.343.9019
- Bijit Kundu, ICF International  
[bkundu@icfi.com](mailto:bkundu@icfi.com) // 202.862.1157

Please send general comments and questions to:  
[ENERGYSTARVerificationProgram@energystar.gov](mailto:ENERGYSTARVerificationProgram@energystar.gov)

Web site: [www.energystar.gov/testingandverification](http://www.energystar.gov/testingandverification)