

1 **Discussion Document: ENERGY STAR Verification Testing for Computers**

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3 **Purpose of this Document:** This discussion document intends to highlight key proposals and
4 remaining questions EPA and ENERGY STAR computer partners discussed on an April 24,
5 2008, conference call regarding verification testing: the rationale for exploring other approaches
6 to verification and possible paths forward. EPA hopes that this starting point document will
7 facilitate work with partners to identify mutually acceptable approaches to verification.
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9 **Next Steps:** EPA would appreciate stakeholder comment on this document by May 14, 2008.
10 EPA will then distribute a second version of the below document, that reflects stakeholder
11 comments, and follow this distribution with a conference call where we can discuss the enclosed
12 proposals further. EPA proposes incorporating changes to the verification program for computers
13 into the Version 5.0 specification under development currently.
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15 **Impetus for a Discussion Regarding Verification:** The Office of the Inspector General (OIG)
16 recently raised questions about the ENERGY STAR program's self-certification process and
17 whether there is reasonable assurance that the process is effective. The OIG recommends
18 establishing a formal Quality Assurance Program for product verification testing to provide a
19 reasonable assurance that results are representative of products available and the certification of
20 others may be relied upon (*this is how it is represented by OIG*). [OIG Report: ENERGY STAR
21 Program Can Strengthen Controls Protecting the Integrity of the Label]
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23 **Summary of Key Issues in Providing Reasonable Assurance Discussed on 4/24/08 Call:**

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 - 26 ■ Demonstrating that manufacturers have systems in place to ensure consistent quality
 - 27 ■ Selectively testing products
 - 28 ○ Determine who funds testing and cost
 - 29 ○ Determine how many models should be tested
 - 30 ○ Determine how many units of each model should be tested
 - 31 ○ Determine how models are selected
 - 32 ○ Determine how models are secured for testing
 - 33 ○ Determine if models are "used" after testing
 - 34 ■ Creating a transparent, unbiased process
 - 35 ○ Provide options for manufacturers that are sensitive to varied business models
 - 36 ○ Strive to eliminate perception that manufacturer's are able to skew results
 - 37 ■ Ensuring Reasonable Level of Effort/Cost
 - 38 ○ Seeks reasonable assurance in cost effective manner

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40 **Options:**

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 - 42 ■ **How manufacturers provide assurance and verify product performance**
 - 43 a. **Manufacturer contracts with a third-party to test products (*Preferred –***
44 ***discussed option for centralized labs, but determined that allowing more***
45 ***flexibility would be more feasible and cost effective.***
 - 46 i. ***Also discussed that lab must meet agreed upon criteria and share***
47 ***data with EPA)***
 - 48 ii. ***Need cost information for approach.***
 - 49 b. Also considered certification of internal labs for larger manufacturers – mimicking
50 the way manufacturers comply with safety regulations (e.g., FCC) (***participants***
51 ***seemed to conclude that this option may not be cost effective)***
 - 52 c. PC Magazine has conducted testing on computers. If they were able to test
53 according to ENERGY STAR test requirements, they could possibly share their
54 test results with EPA. – This idea was brought to our attention outside the call.
55 Currently test requirements differ and would need to be the same to pursue this
56 approach.

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- **How products are selected**
 - a. **Select a sample of 1-5 models per manufacturer each year (Preferred – need to determine what would drive 1 vs. 5 models. Perhaps size of the company or number of qualified models. Also need to consider number of units. Proposal, test 1 unit for each model. If first unit fails, test x additional units).**
 - b. Look at the statistical distribution of units to determine sample size – *determined to be overly burdensome and beyond what is required for reasonable assurance.*
 - c. EPA **OR** contracted labs select models – *need to decide*
 - Select challenging configurations or select at random
 - Select from those with widest consumer base
 - Consider date of manufacture-newest models vs those moving out of production?
 - **How products are procured**
 - a. **OPTION 1 – Lab purchases model off manufacturer website – eliminates opportunity for retailer to modify computer (Preferred)**
 - b. **OPTION 2 – Inspector visits production line and randomly pulls a unit off the line to test in the factory – may be appropriate for workstations, complex expensive products, and business-to-business models that are not available in the open marketplace. (Preferred, but need to ensure that test can be conducted in the factory without resulting in product being considered ‘used’. Question, can Bapco be run without ability of product to be sold as new? Participants thought yes.)**
 - c. Lab works with courier to pull models off the line and bring them back to the lab for testing – model would be considered used and need to be disposed of.
 - d. *Need to figure out what option would work for small integrators who produce limited numbers of computers configured for specific customers.*
 - **How failures are resolved**
 - **Needs more discussion** – need to consider how current approach to qualification (all must pass) vs averaging for qualification fits into testing and compliance (note: CSCI proposal to EPA regarding averaging for internal power supplies)
 - Typically EPA works closely with partners to resolve issues through corrective action plans
 - **What is covered in the verification program**
 - **Needs more discussion - system level results only vs additional component level results (i.e., power supply)**