



NRDC's Comments on
ENERGY STAR's Proposed Enhanced Testing and Verification Program

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April 30, 2010

On behalf of the Natural Resources Defense Council¹ and our more than 1.3 million members and on-line activists, we respectfully submit our comments on ENERGY STAR's proposed Enhanced Testing and Verification Program.

ENERGY STAR is a voluntary labeling program that provides consumers an easy way to identify energy efficient models when shopping for new products. The program has been widely embraced by consumers, retailers, and manufacturers, and is estimated to provide approximately \$17 billion in energy and cost savings and helped prevent the release of 45 million metric tons of global warming pollution in 2009 alone². For continued success of the ENERGY STAR program, procedures must be put in place to ensure labeled products are delivering the benefits consumers have been promised.

NRDC has reviewed ENERGY STAR's latest proposal to expand the program's testing and enforcement procedures (http://www.energystar.gov/index.cfm?c=partners.enhanced_test_verification) and we strongly support many aspects of it. Specifically, we support provisions that will improve ENERGY STAR's initial qualification process and dramatically expand its program for verifying that ENERGY STAR qualified products are indeed meeting the performance requirements set by EPA and DOE. However, we believe ENERGY STAR has not provided enough detail or substantive changes to its "data access" policies. To maintain the value and integrity of the ENERGY STAR brand, we urge ENERGY STAR to make the testing results obtained during its verification program to be publicly available. We provide additional detail on this topic in our comments below.

¹ NRDC is a leading advocacy group dedicated to protecting the environment and public health. NRDC has actively participated in ENERGY STAR's specification setting processes for a wide range of products ranging from lighting products, appliances, to consumer electronics.

² http://www.energystar.gov/ia/partners/annualreports/2009_achievements.pdf

Overview and High Level Comments

To date ENERGY STAR has performed very limited verification testing to assess whether qualified products that are being sold with the ENERGY STAR label are actually meeting the program requirements. As brought to light by the recent GAO report³, the failure of a system for transparent, independent and thorough certification and verification has undermined the credibility and potentially the energy savings opportunities of ENERGY STAR. We commend the agency for taking on this important issue and emphasize that the integrity of the ENERGY STAR label to consumers must be the highest priority. In order to ensure ongoing credibility and integrity, we recommend that ENERGY STAR create a clear public protocol for independent, third party certification with off-the-shelf independent verification testing. As discussed below, once final, all data should be made publicly available in order to demonstrate the rigorous testing and rebuild credibility in the program.

The most comprehensive testing to date has been through an outside watch dog group called PEARL (Program for Evaluation and Analysis of Residential Lighting) which collects and tests samples of ENERGY STAR labeled compact fluorescent lamps (CFLs). Over the past eight years, PEARL has consistently reported test data that shows multiple models of ENERGY STAR labeled products failing to meet one or more of the key requirements contained in the ENERGY STAR specification. The exact source of these failures is not known but could include one or more possibilities including: a) manufacturer selects samples for initial verification that are not representative of the product being produced (e.g. tested samples are better than those made at the factory), b) the manufacturer changed one or more components or component suppliers since the product was qualified, c) the manufacturer has changed the factory/supplier that produces the product, d) qualifying laboratory produced fictitious laboratory result or e) lack of tight QA/QC procedures at the factory that result in wide distribution of test results between samples (e.g. some samples pass and others produced later that day or week do not). To its credit, the Department of Energy (DOE) has in most cases taken action to delist the non-complying products from its labeling program.

My experience as PEARL Board Chair has helped inform our recommendations for a systematic product testing and verification program to be administered by ENERGY STAR and other government agencies such as DOE and the Federal Trade Commission. The key elements include:

1. Sample Collection – Samples should be collected by an independent entity directly from retail (e.g. off the shelf). This prevents the opportunity for manufacturers to “hand pick” the samples to be tested. Also a clear “chain of custody” form and protocol should be created and used to control and document the date and location of each sample that is purchased and sent to the laboratory for testing.

³ <http://www.gao.gov/products/GAO-10-470>

March 2010 Report entitled “ENERGY STAR PROGRAM Covert Testing Shows the Energy Star Program Certification Process Is Vulnerable to Fraud and Abuse”

2. Independent Laboratories – The laboratories used for all certification and verification should be independent and not owned/operated by the manufacturer. Accreditation by a certification body by itself is not a sufficient barrier to prevent a motivated manufacturer from producing biased or false test results.
3. Product Selection – ENERGY STAR shall oversee the process for determining which subset of qualified models should be tested during each round of testing. Development of the list should include BOTH direct input from EPA staff and other stakeholders and a random selection process. A random selection process alone is not sufficient as it may fail to provide sufficient emphasis on the high selling models, or products from those manufacturers whose models have been found in prior testing or other forums not to meet the ENERGY STAR requirements or comply with state or federal standards. In addition, the testing program administrator should have the latitude to ensure that a sufficient number of models of a particular design (e.g. side by side refrigerators, or reflector type CFLs) are tested due to justified concerns concerning the performance of these products. Furthermore, stakeholder input on testing prioritization can provide useful information on potential ENERGY STAR violations. Such information should be used with appropriate discretion to avoid frivolous claims being made by industry competitors.

The fact that a model passed a prior round of testing should not preclude it from being retested in the next round of testing. Given the rapidly changing nature of today's supply chains, a model that passed testing this year, may well fail a year later.

4. Data Availability – The results of the testing should be made publicly available. The data shall include the product's make and model number, the actual results, and the action taken by ENERGY STAR. (Additional comments on this topic are provided on page 4).
5. Collaborate with Other Agencies – The data produced by ENERGY STAR's verification program should be shared with DOE and the FTC for their review and follow-up. In some cases, a product covered by the ENERGY STAR program may also be covered by federal standards set by the DOE or the FTC's labeling program. It's conceivable that an ENERGY STAR listed product would not only fail to meet ENERGY STAR's requirements but also be out of compliance with the DOE minimum energy performance standard and/or have inaccurate information reported for the FTC Energy Guide label. In addition, ENERGY STAR should reach out to other agencies around the world that are performing their own testing to determine trends they are finding. For example certain manufacturers may repeatedly underreport its product energy use, or products with specific features/design may have a much higher rate of non-compliance. This data will help inform ENERGY STAR as to which models to select for its own testing and will also improve international testing efforts.

Similarly, future verification testing results produced from the group within DOE responsible for assessing compliance with federal efficiency standards should be provided to ENERGY STAR and FTC for their review and usage.

6. Publish a Testing and Enforcement Document – ENERGY STAR should produce and publish a formal protocol for testing and verification. This protocol should spell out methodological requirements including things like sample size, test methods, laboratory qualifications, as well as procedural elements including sample procurement, data access, appeal process, etc. This document would be modified where necessary to address unique circumstances that might exist for a specific product category. For example, unique sample collection methods may be needed for products that are constructed on-site or have unique supply chains, such as windows. The protocols should provide clear guidance on what steps will be taken when the testing indicates a qualified model is not meeting the ENERGY STAR requirements. Specifically, can a manufacturer appeal the finding and request a retest, etc.? In addition, the protocols should require a higher frequency of testing for those products produced by a manufacturer whose products have been delisted on more than one occasion.

We are pleased to report that the guidance and proposal provided by EPA's on March 26 are in almost all cases consistent with NRDC's above listed recommendations. We understand that for some product lines, ENERGY STAR will have to modify the general requirements. We expect that these modifications will be minimized to ensure the highest degree of independence, transparency and program integrity. Any variations should be accompanied with alternate mechanisms that ensure all ENERGY STAR products are subject to rigorous certification and verification.

In the sections that follow we provide more detailed comments on ENERGY STAR's overall plans and for individual product categories where we have additional input.

Data Access

The ENERGY STAR program has recently been the focus of several media stories and investigations challenging the integrity of its program. The best way to proactively build and maintain the integrity of the program is to have a robust off the shelf verification testing program that includes **complete transparency** of the program's procedures and testing results. While we are not opposed to ENERGY STAR using qualified third party administrators to oversee the testing, this staffing model should not be used as a mechanism to restrict access to the data and make it allegedly undiscoverable via a Freedom of Information Act (FOIA) data request. Note that the DOE ENERGY STAR program is currently using this exact mechanism to run its ENERGY STAR CFL verification testing with the result being no public access to the data. Besides being bad policy, lack of public access to the test results perpetuates stakeholder and media mistrust of the ENERGY STAR program.

Complete access to the list of products tested and the test results allows interested stakeholders to verify/determine:

- a) That the testing is indeed being done and that the models tested represent a reasonable cross section of ENERGY STAR qualified models;
- b) That the testing is being done by independent, qualified labs;

- c) The source of the samples that were collected (e.g. purchased from Home Depot or shipped directly from the manufacturer);
- d) That ENERGY STAR delisted those models that did not meet its requirements (or if they did not choose to delist the product they provide sufficient justification for their decision);
- e) The severity and frequency of the reported non-compliance; and
- f) Whether the tested model fails to meet a federal or state efficiency standard, or is grossly under reporting its energy use on the FTC Energy Guide. This data can be used by interested stakeholders to support follow-up activity by these other agencies if it is not already happening.

Some stakeholders will likely argue that this test data is somehow confidential or should not be made publicly available since they are paying for the testing. As NRDC has previously stated, there is nothing confidential about the energy use of a product that is commercially available. (We do recognize the need to prevent release of detailed manufacturer data that is submitted to ENERGY STAR prior to its formal launch due to competitive reasons.) Given the considerable benefits manufacturers receive by having their products listed as being ENERGY STAR qualified, the cost to reimburse EPA for the expenses to verify compliance of their products is a small one. Participating manufacturers will benefit by this transparent verification testing program and enforcement as it helps maintain the credibility and value of the ENERGY STAR label. Transparent data also ensures a level playing field for all participating manufacturers.

At various times during this process and similar testing programs, some manufacturers have argued that the EPA should only list those products that failed to meet its requirements or those that it chose to delist. Summary data would be provided for each cycle of testing (e.g. 32 out of 35 models passed). Others have suggested EPA should remove the name and model number of any data provided for the models that passed. While some claim that showing the specific model name and numbers provides an unfair advantage or implied endorsement by ENERGY STAR (e.g. “passed ENERGY STAR verification testing), we disagree. ENERGY STAR can easily make clear that all products are independently certified and that additional verification testing implies no additional endorsement.

To the extent EPA remains sympathetic to this point, we direct you to the “No Commercial Use Policy” shown below that is utilized by DOE as part of its “CALIPER” testing program for new LED lighting products. On their main website, the Caliper test reports list the product features (e.g. 15W down light) and actual results but do not list the manufacturer name or model number. To gain access to the make and model number information, one needs to click and agree to the No Commercial Use Policy. This prevents manufacturers from taking the test results and using them in advertisements or marketing materials. This structure prevents manufacturers whose models are compliant and were not selected to be tested, from being at a competitive disadvantage.

What is the CALiPER "No Commercial Use Policy?"

Anyone who views the CALiPER Detailed Reports must agree to the No Commercial Use Policy.

The U.S. Department of Energy (DOE) is a federal agency working in the public interest. Published information from the DOE SSL CALiPER Program, including test reports, technical information, and summaries, is intended solely for the benefit of the public, in order to help buyers, specifiers, testing laboratories, energy experts, energy program managers, regulators, and others make informed choices and decisions about SSL products and related technologies.

Such information may not be used in advertising, to promote a company's product or service, or to characterize a competitor's product or service. This policy precludes any commercial use of any DOE SSL CALiPER Program published information in any form without DOE's express written permission.

Testing at Manufacturer Factories or Laboratories – The EPA materials include the option of performing testing at manufacturer owned and operated facilities on certain occasions. This option should be one of last resort as it removes the benefits of having the samples collected directly from retail and using independent labs. For example if the samples are pulled from the manufacturer's facilities, the manufacturer can then bias the sampling to the factory of their choice (e.g. they may have 3 suppliers of the product and have inside knowledge that one is much more reliable than the other) or worse yet use improved components for the day the tester is scheduled to arrive.

Comments on Specific Product Categories

In general, we do not have specific product category comments at this time. We will forward these as more of the details are released by EPA.

Overall we are comfortable with ENERGY STAR exploring the option of using existing accreditation and spot checking programs that might exist. Before adopting these as a substitute for its own testing, ENERGY STAR should undergo extensive due diligence in each case. For example, even though an industry might have independent random sampling and testing for a % of the models produced by its members, this may not be sufficient because the testing list is based on all products, a small fraction of which might be ENERGY STAR. In this case, an insufficient number of models of ENERGY STAR products will be tested.

Regarding ENERGY STAR's ongoing plans for testing lighting products, we urge ENERGY STAR to include in its protocols the ability to receive and act on interim data. For lighting products, testing is done at 100 hours, 1,000 hours and 40% of rated life. For poorly designed products, a product may already be out of compliance with ENERGY STAR requirements well before completion and receipt of the 40% of life testing (for a 12,000 hour rated CFL, the 40% of life testing results are not received till after at 6 months). In this case, we would expect ENERGY STAR to begin its delisting process upon receipt of actionable data and not to have to wait an additional 6 months for the remaining data.