



**Underwriters Laboratories Comments  
Proposed Enhanced Program Plan for ENERGY STAR Products**

**April 30, 2010**

We at Underwriters Laboratories (UL) strongly support the incorporation of independent laboratory testing and product certification requirements into the Energy Star ® program. The actions being taken by the Environmental Protection Agency (EPA) and the Department of Energy (DOE) to enhance the Energy Star program are significant advancements that will help bring renewed confidence in the strong brand that your agencies have built over nearly 20 years of promoting energy efficient products.

UL has more than 100 years of experience as a testing and certification partner to governments and manufacturers, and we believe the development of a structured system for conformity assessment is critical. Establishing a system by which laboratories can be accredited for technical competencies, incorporating independent assessments of a product's conformity, and utilizing ongoing surveillance mechanisms are all practical ways to support the continued integrity of the Energy Star program. This is especially true as consumers' concerns about the validity of manufacturer's claims are on the rise.

As you develop the specific program parameters around implementation of these new requirements, UL believes that existing structures for accreditation, testing, sampling, and certification can be effectively leveraged to quickly and efficiently develop an infrastructure to support the program changes. Utilization of existing structures will provide the EPA and DOE with an experienced and proven base and will also provide manufacturers a level of comfort in the changes as they will be similar to existing programs in which many already participate.

**Accreditation of Testing Bodies**

As program enhancements under the ENERGY STAR program are developed, we support required testing by ISO 17025 accredited laboratories for determinations of compliance with the testing requirements for all ENERGY STAR product categories. UL believes this will improve initial product quality, particularly in regions of the globe that are not currently familiar with specific ENERGY STAR test requirements. However, ISO 17025 compliance on its own is not enough. It is critical that the accreditation to ISO 17025 include the specific standards or test procedures in the Energy Star requirements that the lab would be testing to. Technical competencies are not necessarily universal, especially when a program includes as many product categories as the Energy Star program. Ensuring that the lab has qualifications to perform the specific tests they will be conducting will add rigor and credibility to the Energy Star program. These technical qualifications should be built into any accreditation system developed by the EPA and DOE for all Energy Star product categories.

Further, it is important that a competent body manage the accreditation scheme. If this is not done internally at the EPA, an ISO 17011 compliant accreditation body should be recognized to manage

the accreditation scheme. Utilizing these existing guidelines for recognition of accreditation bodies will ensure that the accreditor is qualified for operation of the system and allow for seamless incorporation of the new Energy Star program enhancements.

Introduction of independent judgment into data generation and review is an important element as the EPA and DOE seek to implement program enhancements. While manufacturer-owned labs may meet some accreditation criteria under 17025, utilization of third party testing laboratories will bring additional accuracy and credibility to product claims. This can be accomplished through complete testing by independent, third party labs with the appropriate accreditation, or leveraging existing programs that allow accredited manufacturer-owned labs to produce data for review and audit by an independent, third party accredited lab before submission to the EPA for inclusion into the Energy Star Program.

UL's version of such a program is called DAP (Data Acceptance Program). It is a program audited to ISO 17025 requirements for the specific standards tested to under the program. The program utilizes data generated and recorded at non-UL facilities, in laboratories that also meet 17025 accreditation requirements, which is then used by UL engineers in finalizing their engineering judgments of the product's compliance. Any data generated would be subjected to rigorous review and audit practices to confirm technical accuracy of reporting before the product would be submitted to the Energy Star program. It is UL's belief that allowing Energy Star testing to be included under a DAP-like program would be cost efficient and would allow energy efficient products to get to market quickly. Other Nationally Recognized Testing Laboratories have similar programs. The products qualified would not just be qualified on the manufacturer's produced data alone, but would incorporate follow-up requirements and independently executed testing programs that ensure the accuracy of produced data and ongoing compliance.

Incorporation of this type structure would address a concern that we know has been raised by manufacturers and the Energy Star program about the future of existing testing laboratories operated by some manufacturers. Recognition of this structure would provide a mechanism for those lab facilities to continue to operate and be functional, yet would provide for additional confidence by leaving ultimate engineering judgment and compliance decisions only to accredited independent testing laboratories. This would be further supported through the ongoing testing and follow-up requirements by the program and product certification organization.

This type of data acceptance program allows manufacturers to continue to use their in-house lab for some testing, increasing speed to market and lowers costs, but adds a level of integrity and assurance by having those results reviewed and validated by an independent, third party organization who ultimately makes the compliance determination

### **Recognition of Certification Schemes**

We at UL strongly support the planned incorporation of third party certification requirements into the Energy Star program. Testing alone cannot serve as the only tool for product compliance. The long-established model of third party product certification, whether for safety requirements or other performance-based criteria, has proven an effective tool for ensuring ongoing conformity for more than a century. As the EPA and DOE seek to recognize third party certification schemes for those

product categories for which the EPA has determined it mandatory, attention should be paid to the qualifications and the rigor of the programs being considered.

The third party product certification model involves a closed loop structure to ensure continued product compliance – from manufacture, to sale and use. A closed-loop process builds off of recognized industry practices to define pre- and post-market compliance mechanisms. Essential features include:

- **Testing Function** – per ISO/IEC17025 – deals with procedures for operating a competent laboratory, including the competency of staff conducting testing
- **Certification Function** – Per ISO/IEC Guide 65 – deals with identification of standards used to certify products, technical competency of staff certifying products
- **Factory Inspection Function** – per ISO/IEC 17020 – verification of continuous compliance to standard through procedures and staff for a competent inspection activity
- **Market Surveillance Function** – to counter check products in the marketplace for continued compliance
- **Corrective Action Function** – per ISO/IEC Guide 27 – deals with requirements for the process to address misuses of a certification mark

Any certification scheme recognized should incorporate all of these elements and be compliant with the various Guides to ensure program integrity. By recognizing only those programs that meet rigorous industry standards, built on a strong base that starts with ISO 17025-accredited lab testing, the certification scheme adopted under the Energy Star program can provide the added confidence consumers are seeking and the EPA and DOE are attempting to address through these enhancements.

Further, for those categories for which the EPA and DOE have determined certification will not be mandatory, the program should recognize those manufacturers and products that voluntarily choose to adopt the additional rigor of an established certification scheme. The Energy Star program should allow those products within the consumer electronic and lighting categories that submit and are qualified under a recognized certification scheme to be exempted from requirements under the Quality Assurance Model. This recognition will protect manufacturers from being subject to costs associated with participation in both schemes - costs for certification as well as costs to be associated with inclusion in the Quality Assurance Model – and not discourage those who want to choose to confirm compliance of their products to Energy Star requirements through third party certification schemes.

### **Issuance of the Energy Star ® Mark**

If rigorous requirements are put in place for third party certification bodies to be recognized as Energy Star partners, not only will the confidence of consumers be strong, but it also will build the confidence of the EPA and DOE in its partners. To this end, with strict requirements for recognition of certification schemes, EPA and the DOE will be in a position to allow for those third party programs to have rights to authorize the issuance of the Energy Star Mark upon initial testing and

certification of compliance of a product. This will allow manufacturers to have access to the mark more quickly, with utmost integrity maintained in the program.

Recent changes put in place in the Energy Star program limit issuance of the Mark until after the product report is submitted and approved by staff within the government program, creating additional delays for products going to market. But as the program is currently structured, with only a manufacturer's self declaration of conformity as a basis for demonstrating compliance, we at UL agree this was really the only option available to the EPA to maintain the integrity of the program in the short term.

However, once rigorous accreditation criteria are put in place for third party certification bodies, it is important that these entities be granted rights to approve use of the Energy Star Mark for those products tested and confirmed to meet program requirements. By relying on the technical competence of its partners, the EPA and DOE alleviate time to market issues and possible product delays, and reduce administrative pressures they might face as the program continues to grow.

Qualification requirements to ensure true independence and competency can be imbedded in any accreditation or recognition scheme for third party certification bodies granting the authority to permit rights to the Mark. Independence of judgment will be critical to making this work and ensuring compliance of the products upon initial test, as well as their commitment to entering into a contractual relationship with the certifier to ensure ongoing compliance. While we understand that specific accreditation criteria have yet to be defined, and the EPA and DOE are still evaluating the inclusion of proprietary laboratories in the testing for the program, we support the need for such rights to issue the Mark be limited to those entities truly qualified as third party, independent assessors with closed-loop certification schemes. To accomplish this, we recommend only those third party certifiers that are accredited as Guide 65 compliant should be eligible for such permissions. This will provide assurances for true independence of such decisions to issue the Mark, and will limit access to expedited permissions to use the Mark to only those products determined compliant by those bodies deemed eligible by the Energy Star program.

### **Sampling Methodologies**

UL believes that to fairly apply an energy efficiency mark, a sampling methodology should be developed as part of program requirements. This can be prescribed across the entire program or by product category and can also take into consideration types of products where perhaps the manufacturer might have a mass production vs. sampling in a family of similar products where the volume is relatively small. Without such a methodology, there can be significant disparities between how different accredited laboratories and recognized certification programs apply the requirements of the program. As an example, if a series of 10 air conditioners is submitted for Energy Star testing and no methodology exists, one laboratory may test all units while a second accredited laboratory may test only one. This type methodology is not an element of the accreditation, but must be built into the testing and certification schemes developed.

To avoid the situation in the above specific case, the AHRI 210/240 performance standard for air conditioners specifies that 1/3 of residential units in a series should be tested yearly, and that all units should have an efficiency declared and published by the manufacturer. The sampled units are then

compared with the declared values to ensure consistency. This is just an example in one program with one category of products, but there are many examples of programs and philosophies around sampling that could be easily used. In other examples, the DOE calls out methods in Title 10, Part 430 in its requirements, and ANSI standards dedicated to sampling exist in many specific areas.

### **Conclusion**

UL applauds the commitment to improving the energy efficiency of products in the marketplace through adoption of additional accreditation practices for testing bodies and requirements for ongoing compliance verification for qualified products. Third party certification schemes provide a trusted partner for the Energy Star program that assist manufacturers with ease to market through an existing network of laboratories with which many of them already are working, while still adding assurances for compliance through independent technical verification of results by subject matter experts, mandatory independent audits of all results, and continued compliance monitoring with a mandatory surveillance program.

Such benefits will be achieved through incorporation of appropriate recognition systems for laboratories and certification programs. With the recognition of trusted partners, the Energy Star program will be ideally positioned to maintain its unparalleled success in promoting energy efficient products in the marketplace. As you proceed with adoption of program enhancements, UL stands ready to help.

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