

IBM Comments:  
“Conditions and Criteria for Recognition of Certification Bodies for the ENERGY  
STAR® Program”

IBM appreciates the opportunity to comment on the “Conditions and Criteria for Recognition of Certification Bodies for the ENERGY STAR® program”. IBM supports EPA’s effort to define a set of requirements for qualifying and verifying the ENERGY STAR® attributes for the many product categories covered by the ENERGY STAR® program. Establishing and implementing a transparent, consistent qualification and verification process is critical to maintaining the integrity of the ENERGY STAR® label. As a manufacturer of enterprise IT equipment, IBM’s interest in these draft conditions is limited to their implications for server, storage and network products.

In general, IBM is concerned that EPA has added an unnecessary number of checks and reviews to the Testing and Verification process. The conditions and criteria for the Accreditation Body (AB) and Certification Body (CB) overlap and introduce opportunities for inefficiencies and inconsistencies in the process. IBM recommends that EPA consolidate the criteria and conditions for the AB and CB into criteria and conditions for a single body to simplify the process and insure consistent execution of the lab and product certification requirements regardless of how a manufacturer chooses to implement the process. The selection of the verification products and review of the completeness of the product data and data sheets (as opposed to a certification of the data sheets, which should be done through a self-certification process) can be performed by the accreditation body. There is no need to create a separate certification body to complete these tasks. In addition, EPA should mandate that a single entity cannot be an accreditation and/or certification body and a lab that performs third party testing for a given product type.

IBM is also concerned that EPA’s aspirational schedule is too aggressive for implementing the overall process for server systems by January 1, 2011. Two of IBM’s labs are ISO 17025 certified for safety and EMC testing, but other testing labs are not. IBM is beginning to build and collect the documentation required to achieve ISO 17025 certification for ENERGY STAR® testing, but feel that the earliest IBM could achieve accreditation for the two labs with current 17025 certifications would be the end of the year, given the amount of work that needs to be done. Certification of the other labs which do not have an established ISO 17025 accreditation will extend into the first or second quarter of 2011. EPA should consider establishing interim steps for laboratories to test and qualify products while laboratories are finalizing their ISO 17025 certifications.

As EPA has developed the testing and verification program, the ENERGY STAR® global partners have not been engaged in the development of the testing and verification requirements nor consulted regarding the best means to establish a global qualification and verification process for ENERGY STAR® program. This threatens the value of the global nature of the ENERGY STAR® brand and instead encourages regional requirements for product energy efficiency. IBM recommends that EPA take immediate steps to formally notify their global partners of the development of the qualification and verification process and engage in discussions to establish a globally recognized system that can be implemented in all partner jurisdictions. Working with the ENERGY STAR® partners now to establish a global testing and verification process will be rewarded later by the implementation of a robust, global ENERGY STAR® program that enjoys support in jurisdictions around the world. This is a benefit to all stakeholders: government bodies, consumers, and manufacturers.

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Following are the specific comments to the CB Conditions and Criteria document.

General Requirements and Responsibilities: “Have a substantial North American presence”. (1.b)

IBM is very concerned about the addition of this requirement for the certification body. One of the key values of the ENERGY STAR® program is the international recognition of the brand and the fact that the ENERGY STAR® requirements have been adopted by major economies around the globe.

The requirement for a “substantial” North American presence also ignores the global nature of the product development, manufacturing, and testing infrastructure. IBM has product test labs and manufacturing facilities in the Asia Pacific, European, and North American regions. In order to avoid unnecessary costs and scheduling difficulties for product qualifications and verifications, this requirement should be restated as follows:

“A Certification Body will be required to have a presence in the countries or regions in which the products for which they are responsible are manufactured and tested and maintain an office in Washington D.C. to serve as the liaison between USEPA and the certification body. The Certification Body should also make the necessary arrangements with other ENERGY STAR® partners (EU, Canada, Australia, etc.) to support their product qualification and verification programs for the various jurisdictions.”

This statement more accurately reflects the global presence required for a certification body to successfully administer and implement the qualification and verification process detailed in the relevant documents.

General Requirements and Responsibilities: Lab Accreditation Options (1.c)

IBM does not understand why EPA has established separate distinct lab accreditation/oversight processes: one administered by the Accreditation Body (AB, 1.c.i) and one administered by the Certification Body (CB, 1.c.ii and Appendix A). EPA should have a single body responsible for the accreditation/oversight of labs – either the AB or the CB. The current approach creates two separate sets of accreditation requirements, opens up the opportunity for inconsistencies and conflicts in the process, and drives additional costs for manufacturers as they are being required to support two separate and distinct accreditation bodies and processes. EPA should either remove the lab accreditation process (Appendix A) from the CB’s Conditions and Criteria and move the witness or supervised testing and product certification processes to the AB requirements or eliminate the AB requirements altogether and empower the CB to execute the laboratory accreditation, witness and supervised testing, and product qualification and verification processes. IBM believes that the most efficient approach is to combine all the accreditation and certification responsibilities into a single entity. This comment about duplicative process requirements was originally made in IBM’s comments dated 6/28/2010 to EPA regarding the first draft of the “ENERGY STAR® Conditions and Criteria for Recognition of Certification Bodies”.

In addition, IBM recommends that AB and CB Conditions and Criteria and Lab Requirements documents clarify that ISO 17025 compliant facilities are not subject to mandatory witness testing. The overlap of responsibilities for lab certification or supervision discussed in the previous paragraph make unclear the specific requirements detailed by the current set of documents. It would be appropriate to specifically state that witness or supervised testing is an

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acceptable alternative to ISO 17025 certification. IBM supports the ITI recommendation that EPA outline the full process defined by the AB, CB and Laboratory requirements, detailing the various requirements and certification/testing options and the relationship between the two or three entities.

IBM commends EPA for removing the requirements for the review of manufacturing specifications and assessments of manufacturing facilities that were contained in the previous draft of the CB Conditions and Criteria.

#### ENERGY STAR® Qualification: (Section 2.a)

IBM appreciates that EPA has required the CB to identify and commit to a specific length of time to complete product qualification reviews. This will provide assurances to product manufacturers that reviews will be completed on a specific time frame. It is important that the CB set the review time at 1 week or less for enterprise ICT products, as the time between products being available for final testing and product announcement is typically only a few months, and depending on the nature of the product family, significant testing time may be required to test all the applicable product configurations.

#### ENERGY STAR® Verification (3.i.2)

IBM appreciates EPA’s decision to establish a base model definition for verification testing within the product program requirements. The base model should take into account product cost, as some currently qualified server products have a minimum cost of \$16 K for a minimally configured product and \$500 K for a fully configured product. The cost of verification testing will be unreasonable if EPA does not limit testing to minimum configurations. This problem will be exacerbated on storage systems, when those requirements are established, due to the size of some systems and the number and cost of the storage devices required to fully populate a storage system.

EPA should extend this proposal to set criteria and conditions in the ENERGY STAR ® product requirements to other aspects of the product testing and verification process:

1. Product selection and procurement process for verification testing;
2. The process for procuring products for verification testing; and
3. Testing requirements.

Due to the diverse physical size, energy using characteristics, and cost of products which can be qualified under the ENERGY STAR® program, it is appropriate to establish these requirements in the product requirements development process to tap the expertise and knowledge of the various stakeholders in a given product category.

A concern specific to enterprise server products involves the number of product qualifications that must be completed under the current product family definitions which require separate product listings for processor power use, occupied processor sockets and core count. As currently drafted, manufacturer is required to submit 8 to 20 product family datasheets for what should be considered a single product family. While this is being discussed as part of the Tier 2 computer server requirements development process, the current system will require an inordinate amount of verification testing, even at a 10% sampling level. Should EPA choose to leave the requirements for the number of products to be tested in the CB or AB conditions and criteria, IBM encourages

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EPA to set a maximum limit of products that can be subjected to verification testing in a given year. We propose that number be 3 or less per product type per manufacturer.

#### ENERGY STAR® Verification: Procurement of Units for Testing (3.a.4)

EPA’s clarification of procuring verification samples “off the line” does not adequately address the procurement situation for enterprise IT equipment, which is a build to order process. IBM cannot make a customer ordered and specified IT System available to the CB for testing as required in 3.a.4.b.ii. The system needs to be ordered through the IBM fulfillment system specifically for the verification testing. The CB can then contact IBM (or another manufacturer), identify the order number, establish the date that the system is likely to come off the line<sup>1</sup>, and arrange for the verification testing. IBM restates the recommendation that it made in its June 28, 2010 comments that EPA add a fourth product procurement method, ordering a model through a company’s fulfillment system, for obtaining systems for verification testing.

EPA should also consider expanding the options that a CB or AB and a manufacturer can exercise for verification testing. Some manufacturers perform product verification testing as part of their laboratory/ENERGY STAR® product management programs. An alternative to “blind” verification testing would be for the AB or CB to collaborate with the manufacturer to select products and set testing times for the manufacturer’s verification program to satisfy the verification process requirements. Another option would be to combine witnessed verification testing with the annual lab accreditation audit. This will enable EPA to receive verification testing data while allowing manufacturers to integrate the requirement into the laboratory/product quality control and/or accreditation process(es).

Appendix A: As discussed in the section on Lab Accreditation options, the responsibilities detailed in Appendix A should be integrated with the lab accreditation responsibilities assigned to the AB. The CB requirements are analogous to the “Conducting Laboratory Assessments” requirements in the “Conditions and Criteria for the Recognition of Accreditation Bodies for ENERGY STAR® Laboratory Recognition”, pages 2 and 3. Integration of these processes under a single body will prevent inconsistencies between the various lab management processes and criteria.

IBM continues to be concerned with EPA’s aggressive schedule for the accreditation and certification process to be up and running by January 1, 2011. ITI has presented EPA a detailed timeline that estimates the time for setting up the qualification and verification process and for qualifying products. IBM agrees with the ITI assessment of the time impacts and the fact that it will not be possible to get many labs ISO certified and accredited by January 1, 2011. IBM encourages EPA to work with the appropriate stakeholders to streamline the process along the lines recommended in these comments and our previous comments and to set an achievable implementation timeline for the Enterprise IT product qualification and verification process.

The IBM team is available to discuss its technical concerns in more detail. Jay Dietrich ([jdietric@us.ibm.com](mailto:jdietric@us.ibm.com)) is the IBM interface to the ENERGY STAR® program and would be happy to answer any questions you have or schedule a meeting with our technical team.

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<sup>1</sup> Manufacturing systems cannot typically provide expected delivery dates until the system build has begun. The verification process for enterprise IT equipment will have to build this uncertainty into its procedures.