Comments by Consumers Union on <u>Eligibility Criteria Preliminary Draft (Version 4)</u> for *Energy Star® Program Requirements for Computers*

1) Definitions

Active mode ought to be further defined as the power drawn when the computer is performing some task that is stressful to the CPU and graphics processors, making them compute as fast as they are capable of doing. (The one we use is a Microsoft Direct3D "Twist" demo application, which continuously and rapidly computes 3D graphics frames and displays them in a screen window. The default settings are able to cause, in some consumer-level PCs, a 40-watt increase over the idle-mode power.)

It should be made clearer that "standby mode" is synonymous with the "shutdown" state of computers running such OS as Windows or Mac OS. (Standby mode used to be synonymous with "sleep mode".) It could be further stated that the "standby mode" is the mode entered when a product is first connected to the main supply (assuming any automatically recharged batteries are fully charged.)

2) Performance Specification and Test Procedures

We believe the consumer would benefit from a relatively short sleep-to-active mode change time, so the 5-second time is a good target, and is achievable based on the models we have tested, though only with models using non-CRT display technology. Requiring a relatively short time here will have the added benefit (for the consumer) of limiting the degree to which the manufacturer preconfigures the computer with programs that automatically load on startup. (Given that the activation time depends on the number and nature of running tasks, hardware and associated drivers, which can change through actions by the user, there is no way for the manufacturer to control this time beyond the out-of-box condition.)

6) TierII/Phase II
a.) Fixing the Network Problem

The resumption of sleep mode after a network-triggered wakeup should be no longer than the Shipment Requirement for inactivity timeout to Sleep Mode stated in Table 1.

b.) System Energy Efficiency

This will be difficult to standardize, given the lack of standard measures of performance. It might be possible to define several "classes" of computer based on usage categories ("basic desktop", "workhorse", "gamer PC", "mobile laptop", "desktop replacement", "all-in-one", etc.) and provide an efficiency rating based on energy usage within the peer group and year.

Thank you for the opportunity to comment on this important work.

Dean Gallea, Program Leader, Electronics Department
Consumers Union, Yonkers, NY 10703; (914) 378-2420; d.gallea@bigfoot.com